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CLINICAL LECTURES.

EARLY ARTHROPATHIES IN TABES DORSALIS.

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A CLINICAL LECTURE DELIVERED AT THE
HOSPICE DE LA SALPETRIERE.

Gentlemen:—I will to-day call your attention to an extremely interesting and instructive case. It is a syndrome dependent on a progressive locomotor ataxia, and which appears under such special circumstances that it requires, in the first place, a minute examination, and, secondly, a knowledge of the various aspects under which the malady makes itself manifest, in order to establish a diagnosis.

Before entering into a discussion of this case let me go over some of the general characters of tabes dorsalis. I place before you upon the board the list of symptoms which I call the *tabetic series*; they are about 18 or 20, and their combined variety represents all the clinical points of tabes.

The classical type of the disorder as described by Duchenne is, of course, exceptional, and regarding ataxia the anomalous characters of the affection constitute the rule, especially at the very onset. It is for this reason that I proposed, some time ago, to call *locomotor ataxia* by the name of *tabes*, for, strictly speaking, an ataxia disorder may exist, for many years, without any loss of co-ordination of movement; sometimes it never exhibits any motor disturbances, as I found recently in a post-mortem examination.

Although the various symptoms may appear in a variety of combinations, they follow ordinarily the order pointed out by Duchenne; that is, we have first the prodromic period characterized by lancinat-

ing pains, ophthalmic disturbances (myosis, diplopia), and some vesical troubles which may come on periodically. These symptoms may last for four or five years or even more.

It would be convenient to call this period, the period of lancinating pains, but there is still a better denomination, the one given by Fournier in his remarkable work upon the subject; that is, the *pre-ataxic period* which answers very well to the conditions exhibited. Such does not always occur in Duchenne's type of the disorder, and hence the difficulties from a clinical standpoint. You must remember this fact; not one of the 18 or 20 symptoms of the tabetic series, by itself, explains the condition.

I will bring to your notice some examples: A patient comes to you complaining of a weakened condition of the eye-sight; there is achromatopsia and, on ophthalmoscopic examination, you discover an atrophy of the disc. You will have no difficulty in recognizing the existence of tabes, although there may be other symptoms, because the tabetic disc is extremely characteristic of the disease, and is sometimes the only sign manifest, preceding, for several years, the other symptoms of tabes. Another example: A man who has always been apparently healthy awakes at midnight taken suddenly with a feeling of great depression; he suffers from suffocation, is restless and exhibits a sort of laryngeal whistling sound. The crisis passes in a few hours, to be repeated the following nights, until a permanent snoring sound of the voice is produced. This is, then, a laryngeal crisis which may go on increasing for a considerable time before any of the other symptoms of the malady are made manifest. What I have just said of the laryngeal crisis may be similarly applied to the gastric troubles that I have at other times described. You

are familiar with these painful attacks, accompanied with gastric disturbances such as vomiting, loss of appetite and general depression deepening into collapse, which come on suddenly without any apparent cause; they last a variable time and disappear after one or two months, during which time the digestive functions are again re-established. Under these various insidious aspects of the malady, often interpreted as purely gastric or hepatic troubles, is hidden a *tabes dorsalis*. I recall the case of a patient that came under my observation some time ago, who complained of rectal pains likened to those produced by an introduction of a hot iron or a forced dilatation of the sphincter. These anal crisis, as I call them, had been unrecognised for a long time and were considered of no diagnostic value by the different eminent surgeons consulted by the patient. The nature of the disorder was made clear by the appearance of lancinating pains and other symptoms peculiar to *tabes*.

These are not the only symptoms included in our series. You will find under the name of trophic disturbances, fractures, arthropathies, and the falling out of teeth and finger nails. Is it possible for the trouble under consideration to appear primarily? Yes, and the case which I will submit to your study shows that the disease began by serious articular lesions. Its history is very simple.

Although not always, syphilis is a frequent cause of this affection and, therefore, I would advise you to examine the question of the acquired or inherited constitutional disorder. In the present instance we have the history of an alcoholic parent. I have told you before that every drop of seminal fluid, in an alcoholic man, contains, in germs, the entire family of the neuropathies. Further, the grandfather, on the paternal side, had convulsive spells the nature of which we have not been able to make perfectly clear. The patient himself has never been sick; he is neither syphilitic nor of alcoholic habits. He is 28 years old, married, his occupation being that of worker in bronze, which has permitted him to live in good conditions.

What has been the origin of the symptoms in the man under our observation? In September last he went to take a course of military instruction during a period of 28 days. He took a part in the great mili-

tary manœuvres at Laon. From the first day of the month to the 10th he made, like his comrades, a daily march of 30 kilometers. On the 10th he felt an obtuse or dull pain over the left thigh and began to be unable to keep his place in the field. The military physician who examined him failed to recognise the affection. He was compelled to continue his march, and after four days he supported his trouble no longer and became unable to advance farther. Then he was sent to Paris where he arrived on the 21st, that is 11 days after the beginning of the disease. His regular physician examined him and said that he (the patient) had a double coxo-femoral arthritis. Is it possible that a simple arthritis could have made its appearance suddenly over both hip-joints and in ten days, according to the statement of the patient, disappear almost without the production of pain? Is this not a matter of reflexes? If our brother physician had not been taken up with his numerous occupations, on closely examining the patient he would have found, at least, that the case was a singular one.

The patient was in the hospital at Tenon, and was then brought here. I did not see the patient at first; he was sent by the resident physician, Dr. Dutil, to the ophthalmological ward where the inequality of the pupils and the Argyll Robinson sign were first noticed.

This association of a destructive arthropathia and the pupillary sign, induced me to suspect *tabes*. There are arguments in *pro* and *con*; however, the latter manifestations shows evidently that we have to deal with a tabetic arthropathia.

The patellar reflexes are normal, as you see; its abolition, so frequently met with in *tabes*, is not the absolute rule. Besides, you must not neglect to inquire into the urinary function. The patient tells us that from the beginning of the affection, he had been troubled with involuntary passages of urine at night, and always made efforts to prevent this disagreeable occurrence. This symptom may be included under the category of *false urination* of Professor Guyon. Finally, the patient suffered, after the trouble of the bladder, from pains in the feet and legs; these pains coming on and going away suddenly. We have, then, collected a sufficient number of symptoms—the Argyll Robinson sign, paralysis of the bladder,

lancinating pains—with which to establish a correct diagnosis. Now, this man presents another phenomenon which belongs to the tabetic series also, having come on before the development of the arthropathia. The sign is that of the *tabetic mask*. This peculiar sign was shown to me by Duchenne. It consists in the partial loss of facial sensibility, and in the failure of the patient to properly recognize the situation of the face; he is only conscious of the existence of the posterior portion of the head. In addition, there is loss of taste and also anosmia or loss of the sense of smell. I have often described this symptom, so little known in general, but, nevertheless, very interesting. The history of *maschera tabetica* has been masterly described, as I have had occasion to teach you, by the lamented Miliotti in his remarkable work on *tabes dorsalis*.

Our patient has his mask, although imperfectly developed. The forehead conveys to him only an unpleasant sensation. These symptoms, as I told you before, preceded the development of the hip trouble.

Before entering into the examination of these arthropathies, let me remind you of a case, analogous to this one, which you will find in the first Vol. of my *Tuesday Lessons*: A man, 40 years of age came to me suffering from an arthropathy of the right thigh. The articulation was, without any prodromic symptoms, suddenly affected while the man was at his work. I was surprised at the rapidity of the onset, and, at the same time, at the slowness of the arthritis which likewise had produced a complete luxation of the joint. The history was similar to that one of the present case. We found the same normal condition of the patellar reflexes, paralysis of the bladder and the same crisis of the lancinating pains.

I have endeavored to show you how we can study these deformities of the thigh by the employment of certain methods. I have for a long time advised the study of the *naked* by the physicians. We must confess that we do not know exactly the proportions and shape of the body, hence when we examine a naked patient we believe that we are able to notice this peculiar deformity at once. We should always begin with this method of examination.

You know that in the language of art by the word *canon* is meant the relations which the proportions of the various parts

of the body bear to one another, one of these parts being termed the *module* and taken as the unit. We have thus the *canon* of the Egyptians, the length of the waist being considered as the *module* or unit; that of the Greeks, based upon the length of the palm of the hand; and then, the ones proposed by Jean Goujon, Leonardo da Vinci, etc. The *canon* of modern times recognizes as the module the height of the head, (22 centimeters as the average) 7 or 8 times of which constitutes the total height of the body.

Mr. Paul Richer, in his investigations on morphological anatomy has proposed an *electric canon* which embraces the advantage of the anthropological *canon* of Topinard and the advantage of that of the artists. The *module* which he uses as a unit of measurement is the height of the head, $7\frac{1}{2}$ times of which makes up the height of the body. The trunk will measure four lengths of the head from the vertex to the gluteal folds; the inferior extremities will also measure four lengths from the plant of the foot to the anus.

Let us now apply these measurements to the proper interpretations of the present clinical case. This man has lost 5 centimeters of his height since he first began to feel sick. What has been the cause of this? In a healthy man the bi-trochanter line passes along the smaller portion of the anus, and the plane along the superior iliac spine; the measurement above the first line gives 5 centimeters. In this case the bi-trochanter line is nearer the iliac spine, so as to be confounded with it, and it shows the loss of the 5 centimeters referred to.

Over the back, in a healthy man, the bi-trochanter line passes along the inferior extremity of the sacrum; in our patient it passes 5 centimeters above the sacrum. The trochanters have been raised, while the iliac bones have decended as a result of the coxo-femoral lesions. We find, at the same time, a transverse dislocation of the trochanters, where an apparent enlargement of the pelvis and the attenuation of the median gluteal fold, place the anus, so to speak, in an exposed condition. The inferior gluteal fold is also diminished.

I will next call your attention, in a few words, to the anatomical lesions that we see after the clinical manifestations we have so far studied. You can judge for yourselves in examining the specimens that

we have collected and placed in our Museum. The tabetic arthropathies are characteristic and their study cannot be separated from that of fractures of the same nature, since we have to deal in both cases with a similar pathological process. There are certain bone lesions which may be called preparatory, and which consist in softening, the results being an extreme brittle condition of the hard substance at the point of lesion. In such instances, the slightest traumatism, a simple effort, may produce what is called a spontaneous fracture. If the fracture does not occur in the continuity of the bone similar alterations on the level of the epiphyses may also result in fracture of these. We must, however, make a distinction in the two instances. In the one case the fracture may be a *fragmentary* one, as in the head of the femur, of which I show you here this example. It is divided into two pieces, one of which remains in the cotyloid cavity. In the other case, there may be what is termed a *molecular* fracture, in which the epiphysis is simply crushed and appears as if it had passed through a grindstone. It is to these bones, with heads so deformed, that I have given the appellation of *drum-sticks* (*baguettes de tambour*). These serious lesions are produced without inflammatory processes and without the production of osteophytes.

Such constitute, at least, the type of simple cases. There are other varieties, and in these we find cases in which we come across vegetations more or less analogous to those of a dry arthritis; but the alterations I have pointed out are the ones which are more or less peculiar to tabetic arthropathies.

To resume: We have here a patient in whom, a month after the appearance of the affection, we were able to recognize tabs, although the condition was only manifest by the existence of arthropathia. Now, it is important to be able to recognise things, at the beginning, and in the present case an early diagnosis would not have been useless.

There are the benign and malignant types of the disease; the last ones are due to the fact that patients continue to walk. I verily believe that if our patient had been advised rest from the beginning, destruction of his articulations would have been avoided.—*Translated from La Semaine Medicale.*

INCOMPLETE LAPAROTOMY WITH INJURY TO THE BLADDER.

By WM. GOODELL, M. D.,

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Gentlemen:—The woman now before you presents a very interesting case. She is 40 years of age, has been married 17 years and has never conceived. Her menstruation has, as a rule, been pretty free, but of late it has become profuse and excessively painful—more and more so every year, until now she suffers prolonged agony each monthly period. Her pain lasts some 48 hours and is so severe that her physician has often given two grains of morphine hypodermically in six hours time in order to allay it. Neither antipyrin nor chloral has any effect whatever upon this pain. She has become morbid over it and is all the time dreading her next monthly period. Further, between her monthlies, she has continuous pain in the right ovarian region, preventing her from working.

On further examining the patient in my office, I found a fibroid tumor in the interior wall of the womb—not a very large one, but sufficiently so to distend the uterine cavity and make the canal patulous. This accounts for the excessive menstruation. She was so nervous that I was not able to make a satisfactory examination; yet my conviction is that the womb and tumor are fixed by adhesions and that both appendages are probably diseased.

The cervical canal might be dilated and the tumor enucleated from its rest; but that is a very hazardous operation. Besides, it would not release the womb and the ovaries from their adhesions. We must, therefore, either remove the womb and tumor, or else the ovaries. If the ovaries are reachable and removable, oophorectomy will be the simplest operation to perform. By this means, the change of life will be brought about; the menstrual molimen will cease; the monthly flux of blood will be checked and the tumor will grow smaller and probably disappear in time. But sometimes the ovaries are wholly imbedded in the tumor and become part and parcel of it; sometimes they are stretched into narrow ribbons on the surface of the tumor and it is impossible to remove them. Then we are driven

to the more serious operation of removing womb, tumor, ovaries and all.

Strange as it may seem, it is much harder to remove a small tumor together with the womb, than a larger one. A sentimental and an enamored poet once wrote, "My wound is great because it is so small." His rival, to show the absurdity of the thought, wrote as a rejoinder: "Then 'twould be greater were it none at all." So you might rejoin: "If it be more difficult to remove a small tumor than a larger one, it should be still more difficult to remove no tumor at all." But while my paradoxical statement contains no rhyme, it contains good reason. For the upward growth of a large tumor tends to convert the cervix into a kind of pedicle; whereas a small uterine tumor generally compels the complete extirpation of the whole womb.

The incision is now being made between the two recti muscles, down to the fat lying above the peritoneum. Since in this case, the intestines lie between the tumor and the parietes, I must proceed carefully to cut layer by layer. Here we come directly upon the peritoneum. Ascitic fluid! Let us see what is the meaning of this. Now I am in a quandary, as to whether the opening I have made is into the peritoneal cavity or into a cyst. This looks like thickened peritoneum, and my fingers pass right down to the womb, but—there is a membrane separating it from my fingers. A small fibroid tumor is palpable in the wall of the womb. I suspect that I have made an incision into the bladder, although the fluid removed, did not have a urinous smell. To verify this, my son will pass the uterine sound into the bladder. I have cut into the bladder, for you can see the sound protruding through the abdominal incision. The bladder is adherent to the abdominal wall up to a point above the umbilicus. Hence I shall have to extend my abdominal incision to a point still higher up, where I can reach the abdominal cavity.

This is a very remarkable condition; and I must proceed with great care, as all landmarks are wanting. Separating the bladder from many omental adhesions and also from the abdominal wall, from above downwards, I find the womb and its appendages, the intestines and the bladder, matted together in an inextricable mass.

Is this opening in the bladder a serious

accident? Not at all. The wound is but one inch in length and, from the adhesions to the abdominal wall, is wholly extra-peritoneal. I sew it up with a continuous suture of catgut, which extends through all its coats, and it will be included in the sutures of the abdominal wound. With catgut, I do not hesitate to pass through all the coats of the bladder, because this suture by swelling will effectually fill up the holes made by the needles. Had I used silk, I should have gone to, but not through the mucous membrane of the bladder.

I shall now break up some uterine adhesions, and release some of the adherent intestinal loops. But as for removing either of the appendages, I am afraid that cannot be done without irreparable mischief to the surrounding and adherent intestines. I, indeed, cannot feel the ovaries or tubes, much less define them, unless it be the left ovary, which seems as small as a bean, and lies behind several layers of false membrane, to which is glued an intestine.

The fact is, for the sake of the woman's life, I shall be obliged to stop all further procedures and close up the wound. Such a retreat from an operation, such a defeat, rarely happens, but it occasionally will happen, and I must confess that I always feel somewhat humiliated at its occurrence, for when one undertakes to do a thing, one does not like to fail in the doing of it.

What shall be said to this woman when she comes out of her ether? I shall tell her frankly wherein I failed, but I shall lay stress upon the adhesions which have been severed, so that the bane will have something of an antidote. Then I shall comfort her with the assurance that after the menopause, her sufferings will be lessened. Then again, this operation, abortive as it has been in so far as the extirpation of the appendages is concerned, may set up such trophic action as greatly to lessen the size of the womb and the number of adhesions. I have seen this happen twice in a most remarkable manner; in each case a large fibroid dwindled away, the fixed womb became movable, and adherent appendages apparently became free.

I shall put her upon the prolonged use of ammonium chloride and of corrosive sublimate by the mouth, which will di-

minish pelvic congestion. She will also be supplied with suppositories of watery extracts of opium for the pain of her monthly periods.

Should a drainage tube be used here? No! Everything has been done aseptically; the bleeding has ceased and no cavities containing pus or fluid have been opened, so that a tube is unnecessary. I am always glad when a drainage tube can be dispensed with, as it tends to cause hernia. Then, too, there is the danger that a silk ligature left in the abdominal cavity, may become septic, from the use of a drainage tube, and cause a sinus which may remain open indefinitely unless the ligature is removed. Only a few days ago, I assisted a physician in cutting down upon a ligature which had been thrown around the left appendage and had become septic and consequently a foreign body, on account of a drainage tube. The sinus had remained open for months and the lady menstruated through it, because it led directly to the left uterine cornu. It was removed, and in a week's time, the fistulous track will probably close up. The same thing has happened to me on more than one occasion. I have sometimes hooked out a silk ligature with a long hooked probe. This one could be caught, but not hooked out, as it was too firmly attached to the uterine tissue, so it had to be cut out. To avoid this mishap I now use catgut ligatures, which last long enough to do their duty, but not long enough to become a foreign body.

I now begin to close the abdominal wound, by deep sutures including the peritoneum and taking in a liberal amount of tissue. Care is taken to include the wound of the bladder in these sutures, so as to make it wholly extra-peritoneal, and prevent the possibility of any leakage of urine into the very vulnerable serous cavity. Iodoform powder is dusted over the abdomen and bichloride gauze, together with several thick layers of baked cotton complete the dressing. Iodoform is so repulsive to some patients, that I sometimes substitute boric acid for it.

It seems strange that no history of abdominal inflammation could be elicited in this case, for the woman must have had a severe attack of peritonitis. Probably it was an inflammation of the bowels, and was treated accordingly by her physician. Possibly it may be of specific origin—in

which case it might have advanced insidiously, without much constitutional manifestation.

NOTE.—For three days after the operation, bloody urine escaped from the self-retaining catheter, which was kept in for a week. The patient's recovery was prompt.

EVIL EFFECTS OF CAUSTICS ON THE UTERUS.

CITTADINI (*Bullet. de la Soc. Belge de Gynec. et d' Obstet.*, No. 5, 1891) states that a patient, aged 28, was treated in Paris for "hæmorrhagic endometritis." On December 31st, 1890, a stick of chloride of zinc was introduced into the uterine cavity. She was discharged on January 16th in good health; the sound could be passed with perfect ease. The period, due on January 30th, did not appear till February 8th, and the cervix suddenly became contracted. By the end of May the sound could not be passed more than 1½ inch; the stricture seemed to be situated at the os internum. The period continued regular, so that the stricture could not have been impermeable. In the summer of 1891 the patient consulted Dr. Jacobs, of Brussels. She had profuse purulent leucorrhœa, hypogastric and lumbar pains, and painful defecation, but micturition was not affected and the period not particularly painful. There was a tumor to the right of the cervix, and deposit in Douglas's pouch and to the left of the cervix. The sound could not be passed beyond the stricture. Dr. Jacobs's diagnosis was "right perimetritis and cystic salpingitis complicating purulent endometritis with uterine stenosis." Abdominal section was performed; the tumor proved to be a suppurating broad-ligament cyst; the tube was occluded at its abdominal end, and contained muco-pus, but was not dilated. The right ovary had undergone sclerocystic degeneration. There seemed to be total absence of the left tube and ovary. The patient recovered. Cittadini observes that whatever might be the precise relations of the stenosis to the disease of the appendages, it is certain that the cauterization caused the stenosis.—*Brit. Med. Jour.*

COMMUNICATIONS.

REFLEX HEADACHE.*

By F. H. EDSALL.

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In presenting for your consideration the subject of reflex headache, I feel almost as though an apology were necessary for occupying your time with a subject apparently so time-worn and threadbare, yet so pregnant with interest for the general practitioner, as well as for the ophthalmologist, is the subject that I feel confident you will grant me your indulgence for having selected it as my paper this evening.

I am sure that if the physician in general practice could but go over the cases he is called upon to treat, he would find that his aid is more often sought for the relief of headache than for any one ill to which flesh is heir, and I am equally sure he will as often be "put to his trumps" in finding a means of accomplishing this relief as in any disorder of the human economy other than the one under consideration. This arises from an easily understood cause. Headache is such a commonly occurring symptom of many deep-seated and obscure affections that be he ever so skillful a diagnostician the physician is many a time and oft compelled to grope blindly in search of the cause, and in consequence his thrusts at the peace-destroying demon of headache must now and again be widely delivered. Remedies there are without number for headache; the doctor, the druggist as well, is never at a loss for a drug or prescription to relieve the throbs of pain which rack the sufferer's brain, but he who makes drugs his staff upon which to lean will find too often that he has but a broken reed for his support. It is not, I think a rash statement, nor one not warranted by statistics, that the majority of recurring, or of persistent headaches, are reflex in character due to some abnormality in the refractive state of the patient's eyes, or to an imperfectly maintained muscular balance between the sets of little muscles which regulate the motions of the eyes—the much talked about heterophorias of the present day, the muscular

insufficiencies of the past, and this being the case, the most that can be hoped for from medical treatment is a temporary obtunding of the pain for which the sufferer seeks relief. The busy practitioner of general medicine is unable to spare the time to go into a prolonged examination of the refractive state of the patient's eyes; in fact it may not occur to him to do so or he may not have the means at hand to accomplish it were he able to spare the time. Naturally, therefore, his mind turns to the pharmacopœia for something with which to relieve his patient, and he has recourse to one or the other of the prescriptions he has found useful in similar cases. This may, if the case be not of reflex origin, end the matter, but if it be due to eye strain, it will prove of temporary benefit at best, and the patient returns so often to the doctor that the case becomes a bugbear, and at last, discouraged and despairing of being able to further aid him, the physician bethinks himself of his friend, the oculist, and to him the patient is forthwith dispatched. If it be eye-strain that has caused the suffering it is soon determined and quickly relieved.

Now, as to the character of headache due to eye-strain. What is there in the structure of the eyes that should cause them to give so much offence in so many of our fellowmen? And why is it that drugs have no power to relieve the aching brain where the eyes are at fault, or at best give but temporary relief. In answering the question may I beg your indulgence in advance if I trespass so far upon your good nature as to cite some points in the anatomy of the eye, which it is necessary for you to bear in mind in order to appreciate the causative action of the eyes it producing headache?

The eye proper, is, as you know, a spheroidal body, which may be compared to a miniature photographic camera, the retina representing the sensitive plate. The distance between the sensitive plate and the dioptric apparatus of the eye is a fixed distance; that is to say, the distance between the retina and the back of the crystalline lens is so related that when the eye is at rest and normal in structure, the focal point for light coming from a distant object will be exactly upon the surface of this sensitive plate, known as the retina. Suppose now, however that this relationship is destroyed through the retina being

* Read before the Alleghany County Medical Society, March 22d, 1892.

situated in advance of the point where it should be; that is to say, through the antero-posterior diameter of the eye being shorter than normal, as not infrequently happens. The refractive power, the ability of the optical system to focus the light, is an invariable power, thus then we have a condition in which the optical system is called upon to focus the image of the object observed upon a sensitive plate in advance of the point at which the system is adjusted to focus it. One or two things must then happen, either we must get but a blurred and indistinct image of what we look at or else the focusing power of the eye must be increased. The eyes have an inborn abhorrence for blurred images, and in a case like the one cited, unknown to their possessor, set about remedying the indistinctness of outline. By means of the mechanism with which the eyes are provided to enable them to see objects close at hand, the mechanism of accommodation, the refractive power of the lens of the eye can be increased by making it more convex. Now, in an abnormal eye, such as I have mentioned, this mechanism is brought into play. The need is for a stronger lens to make up for the diminished distance between lens and retina, and it is thus met. In doing this, however, the eyes part with a portion of their power of accommodation. It would be a work of supererogation for me to describe minutely the mechanism by which this ability to alter the focal adjustment of the eye is accomplished. I will merely recall to you what you already know, that the ciliary muscle, by contracting or relaxing increases or diminishes the convexity of the lens which is attached to it, thereby shortening or lengthening its focal distance. In normal eyes this mechanism is only called upon to enable the individual to see objects close at hand. In eyes that are too short this demand is constant and great in proportion to the amount of shortening. Now, in eyes of this character the eyes are constantly doing, as I have said, a certain amount of the work that normal eyes are only called upon to do at intervals, and if we have super-added upon this, the work necessitated in accommodation, there comes a time when the tired muscle begins to send out plainly-felt reminders of this overtaxed state. So nicely are the eyes adjusted to their work that for a long time they can accommodate for close work and make no

complaint, if light and other conditions be favorable, but if the amount of work be exceeded for any considerable time, as in the case where in addition to the work of accommodating for near objects, they must cover up the blurring which would be caused by the shortening of the globe it will not be long before the demand for aid will be felt. It is not so much the continuous work which the eyes are called upon to do which makes the need for assistance felt; that is to say, it is not the work of compensation for the defect in structure, unless this be high in degree, for this would doubtless be unnoticed were it not for the additional demands which civilization makes upon the eyes in the way of close work that gives the fillip which causes the eye to break down, because the ciliary muscle is doing more work than it is capable of doing for any length of time.

In the normal eye there is rest from work when the eyes are fixed upon some distant object, for then the light falls upon the retina focused by the lens at its least convexity. In the shortened eye there is no rest except during sleep, for if the eye is to see clearly at any time the surface of the lens must be to a certain degree more convex than when the eye is normal, which means a demand upon the ciliary muscle. With the intimate nervous connection between the eye and the general nervous system it is not difficult to understand that the constant irritability thus necessitated should communicate itself to the more distant parts and produce the continuous pain which is noticeable in such cases. I have thus far mentioned only hypermetropia as a condition inducing reflex headache from eye-strain. As a matter of fact, any of the refractive errors are equally capable of producing this condition and astigmatism more often even than simple hypermetropia is the cause of cephalalgia. This condition is one in which the cornea, instead of being regularly curved throughout its entire extent is, in one meridian, in consequence of congenital defect, of disease, injury or from operation become differently curved from the other.

Thus, to roughly illustrate, it is as though a ridge traversed it from one side to the other. In consequence of this there is never any distinct retinal image so long as the defect remains uncorrected, for there being different focal distances for

the light coming through the different meridians of the cornea, there is no possibility of focusing both sets upon the same point. The effect of this is to keep the accommodative apparatus in a continuous struggle to bring both sets of rays to a focus, and from the constant struggle weariness soon ensues,—sooner, indeed, than in single hypermetropia, and the headaches follow. This condition may be of a variety of characters. There may be an hypermetropia in only one meridian, or there may be an all round hypermetropia with one meridian more hypermetropic than the other, or the eye may be near-sighted, myopic, in the corresponding way, or lastly, one meridian may be near-sighted, the other far-sighted. Myopia or near-sight may also cause headache, not through its action on the ciliary muscle, for in myopia there is less than the usual demand upon this in using the eyes. The eye is longer than it should be and the lens needs less convexity than it normally would. It is probable that the headache and other symptoms traceable to myopia are dependent upon the disturbance in the relationship which exists between convergence and accommodation. To look at an object close by the eyes have to converge in order to bring the image upon the yellow spot. Ordinarily this is associated with a considerable degree of accommodative action on the part of the ciliary muscle, however in a myope less use of the accommodation is necessary than normally to see objects close at hand, while there is still need for the same amount of convergence. It is this condition of disturbance which is doubtless responsible for headaches due to myopia. Still another abnormal condition of affairs in the eyes may cause reflex headache; this was formerly known as muscular insufficiency. It is a lack of balance between the external and internal recti muscles. In converging to look at objects close at hand, there is a good deal of effort put forth by the internal recti muscles. If, as often happens, the internal recti muscles chance to be weaker than normal, the extra effort required to overcome the antagonistic pair of muscles soon causes fatigue, which very quickly produces nervous disturbance.

Having briefly called your attention to the conditions of the eyes which cause headache, I beg leave to consider the signs by which we should be lead to suspect the existence of eye defect.

If the patient complains of increased headache whenever his eyes are used for reading, or if the headache only appears after such use of the eyes; and if the headaches are localized about the temporal or frontal regions, the eyes should be looked to for an explanation, particularly if vision is faulty. So, too, if eyes become reddened easily, or the patient shows a disposition to grow sleepy over his reading, be his book never so interesting. Careful examination of the eyes with proper appliances will generally clear up the diagnosis.

As to treatment, there are but a few words necessary. Correction of the refractive error by proper glasses will usually give marked and quick relief. This correction should be done under a mydriatic, as without this, much of the defect will doubtless be over-looked. Protean nervous symptoms will oftentimes disappear like magic after proper glasses are adjusted, and the sufferer experience a relief before unknown.

If muscular insufficiency exist, this should be corrected by prisms, or by operation, and some attention to the general health is also demanded, as not rarely this is also at fault, and plenty of open air exercise is to be commended. I regret that the short time that has been given me in which to prepare this paper has prevented my making it more thorough and more interesting, but if I have succeeded in pointing out to you the road to relief for any sufferer who may be in your charge, and for whom medicine offers little hope of relief, I shall feel that it has amply repaid me for the work of writing it.—(*For discussion, see Society Reports*).

FRACTURE OF THE NASAL SEPTUM.

Dr. W. J. Clegg has observed two cases of this injury during the past year, in both of which the cartilage of the septum was displaced so as to occlude the left nostril. In the first case, by making four cross-cuts through the cartilage eight triangles were formed, and these were separately fractured at their base. The septum could then be pushed into place and the nostril plugged to support it. At the end of three weeks the result was perfect. *Lancet*, Jan. 2, 1892.

PNEUMONITIS AND ITS TREATMENT.

BY A. D. BINKERD, M. D.,
WEST MONTEREY, PA.

While I do not wish to recite the particular treatment of any particular case of pneumonitis coming under my care in a long series of years, it may not be without interest to review the general method by which very satisfactory results have been obtained by me in the treatment of all forms of this very common and too fatal affection. I say too fatal, because readily amenable to proper and judicious treatment when timely applied.

Experience has taught me that many things besides the administering of drugs may be advantageously done for the prompt relief of the patient, and that he who depends wholly upon the effects of drugs in extreme cases is doomed to disappointment.

While it is well to understand therapeutics and the theoretic effects of certain remedies upon the nervous, respiratory and circulatory systems, it is better to know that theory is sometimes diametrically opposed to the facts in actual practice, and still better to dare to deviate from theory when the results justify.

I am called to see a young man who after several days of exhausting fatigue and exposure to inclement weather had a severe chill, loss of appetite, a slight headache, general malaise continuing all afternoon of the day before. After the chill passed off fever began to rise, the breath grew short with acute pain at each inspiration. Breath grew constantly shorter, and the pain more distressing. Exacerbation of fever and delirium was a prominent feature during the night.

On examination I find the temperature 103° to 105° F. Pulse 120 to 140 per minute. Respiration 26 to 30, with suppressed hitch, or a marked tendency to hold the breath at a certain point. On percussion I find marked dullness at the lower portion and exaggerated resonance of the apex of the right or of the left lung as the case may be. Auscultation reveals a peculiar dry pneumonic murmur at this stage of the attack that words cannot describe so well as the trained ear can recognize. All of which possess a pathognomonic value in

the diagnosis. Secretion of the kidneys is scant and high colored, the tongue is furled, dry, whitish red and hot; mouth clammy and teeth rapidly accumulating sordes. A hacking cough, dry and resonant, fails to bring up the characteristic brick-dust sputa.

We have here a case of acute congestion and inflammation of the lung—involving only one or both lungs as the case may be. A pneumonitis—liable to become complicated with pleuritic effusion and in time, pulmonary hepatization, uræmic poisoning and death. Three days ago the patient was in vigorous health, full of blood, happiness and hope. His florid complexion and bounding pulse still testify to these facts.

I must act promptly but judiciously. What must first be done? From the median basilar or median cephalic on the affected side I take a full stream of dark blood to the extent of 10, 12 or 16 oz. till the pulse becomes soft and compressible and the patient expresses relief from the acute pain at each inspiration. The skin has grown moist, and venous and arterial tensions have become relaxed. The patient expresses himself as feeling decidedly comfortable and soon goes quietly to sleep.

Look out now for a new danger. But let me say here, "Never try this method of treatment upon a patient of the African race, nor upon an aged patient whose supply of vital fluid is already too scant, nor in a case in which the disease has already passed beyond the first stage. Should you so far forget yourself as not to heed this timely warning, you will surely regret your experiment of reviving the "lost art" of phlebotomy.

Now while my patient has been sleeping a soothing and invigorating sleep for full fifteen minutes, I have prepared in the most scientific manner, as taught to me by the Elder Gross himself, America's greatest surgeon, a thick heavy poultice from linseed meal, thoroughly stirred up with boiling water to the consistency of hasty pudding. This is now spread evenly, a foot square or more, on the double of a piece of cotton cloth a yard wide and nearly as long. The third part is now folded over the plastic mass, over which four to six drachms of tr. opii. camp. is evenly poured. The whole is now held before the fire until it is quite warm. In this state it is applied to the bare skin of

the patient, from the vertebral column behind, around the affected side to a point beyond the sternum. A dry binder is now neatly pinned around the whole and that part of the work is finished. The effect is stimulating to the heart, soothing to the nervous system and decidedly antiphlogistic. In six hours the poultice is renewed and so continued for several days gradually diminishing the thickness or depth of the mass according to requirements of the case. Be exceedingly cautious in renewing and finally removing the poultice that secondary inflammatory symptoms do not supervene. This topical application I have found in my practice of 25 years to be of the utmost importance, and one that never failed me, in its beneficial results.

Is this all that is indicated in this case, since the patient is so comfortable and quiet and the active inflammation probably subdued? By no means. Hence I warned you to look for danger. To win a battle is a glorious triumph, but to utilize the victory calls into requisition the highest type of generalship. To bring your patient out of this prostrate condition by gradual advances, without the occurrence of violent exacerbations of any feature inimical to convalescence, will test your generalship in utilizing a victory and establish your ability to restore a patient to perfect health by judicious, rather than theoretical medication. What further shall be done in this case?

Scrutinize closely the symptoms. Cardiac sedatives may be necessary. These are readily found in the salts of bromine. Cardiac stimulants and cardiac tonics are indispensable. As to the former, we give the preference to digitalis, in spite of its toxic effect upon the cardiac muscle. Here, theoretic medication is superseded by practical application to particular cases. Why should we seek a result through an agent which theoretically poisons the very organ we wish to stimulate to greater strength? For this we care but little so long as the theory does no practical injury to our patient. Hence, theory must oft stand aside to give preference to the demonstrably practical and useful.

As a safe cardiac tonic we regard the carbonate of ammonium as indispensable in all cases of pneumonitis, especially after full bleeding. Of this we give grs. ij to iij every three or four hours in a f3 of

mistura glycerhizæ comp. (Brown Mixture of the *U. S. Pharmacopœia*), or,

R Syr. pruni Virginiana f3iij.
 " Scillæ comp
 " Senegæ ʒi f ʒss.
 To this add ammonium bicarb ʒj. Dose a teaspoonful every 2, 4 or 5 hours.

This is a very convenient and eligible form in which to exhibit a cardiac stimulant, to which we attach great importance in the treatment of all cases of pneumonia. The condition of the bowels and secretions generally as well as judicious attention to the proper nourishment of the patient are also of the utmost importance.

Of this class of patients treated on the above described method we have not had the misfortune to lose one case in a score of years.

Young children of whom I have treated many, both after measles and of the common prevailing type of congestion and inflammation of one or both lungs, recover almost invariably under the above treatment modified to suit the nature of the case.

I have never resorted to phlebotomy in the child. The disease generally yields promptly to free application of iodine followed by a poultice topically. Cardiac sedatives or depressants such as tincture aconite root, (Norwood's tincture), combined with syr. pruni Virginiana. Cardiac stimulants and tonics, Foxglove and ammonium according to the nature of the case. Attention to the bowels and secretions is also of the utmost importance.

There is one more class of cases to which the above treatment in general is not wholly applicable. I have had apparently the most hopeless cases in persons over seventy years old recover after long weeks of patient care and treatment from a severe attack of pneumonitis.

When called to see a case well advanced in years, suffering from the symptoms of acute congestion and inflammation of the lungs, such as—fever; rapid, small, wiry pulse; short breath, pain at each inspiration with a sense of increasing stricture around the chest, it behooves us to scan every feature of the case most critically. Upon our wisdom and promptness of action depend the life of the patient. This patient is well advanced in years. His masticatory and digestive apparatus are defective, consequently he is not well nourished. His blood is deficient in quantity and defective in quality. His is

evidently not a case for the lancet, or general bloodletting. But we can apply a cut cup over the seat of the pain, one ounce of blood may be safely taken and with marked benefit to the patient as we have repeatedly proven. Several dry cups are now set over and around the painful portion of the chest. The abstraction of blood and serum from the deeper structures have a marked and soothing effect upon the symptoms of congestion and inflammation. A warm poultice with a full Dover's powder have procured rest and sleep for the patient. The recurrence of pain is effectually controlled by vigorous application of the dry cups upon the back front and sides and renewal of the linseed meal poultice. The application of the tincture of iodine full strength has also a salutary effect. The exhibition of the fluid extract of ergot in 5 doses twice or thrice daily may check or prevent serous effusion of the inflamed tissue. Twenty drops of muriated tincture of iron with two or three grains of quinine in a wine-glass of water, twice or thrice daily, soon as it can be well borne is perhaps equally efficacious in preventing effusion and toning up the system.

The syrup of wild cherry with nitre and tr. opii. camph. in teaspoonful doses every two or three hours, combined with the carbonate of ammonium, have a special potency in suppressing cough and facilitating expectoration.

In this class of cases we proceed best with the expectant plan of treatment. All of which means, *watch your patient most carefully*, that you may take advantage of the earliest symptom of change of whatever character, check and control the same by sedative, depressant, stimulant or tonic as the symptoms may indicate.

We have long been in the habit of giving, once or twice daily, one or two or more grs. of quinine sulph. to all these cases whom we could persuade to take the drug. But since I have obtained equally good results in children, to whom the sulphate of quinine could not be administered on account of its bitter taste, I have sometimes questioned whether its exhibition is at all essential to successful treatment. I do not, however as yet feel justified in dispensing with this drug in these cases, until unmistakable proof of positive injury be presented.

Finally, my experience has taught me

that pneumonia as generally met with in this part of the country, is promptly amenable to treatment in the very young and on through life to the very aged, and that favorable results bear some relation to the early recognition of the symptoms of the attack, and the promptness with which the symptoms are combated.

In short, the general results depend largely on what the attending physician and the nurse in their combined wisdom and experience tend to make them.

CEPHALHÆMATOMA, WITH REPORT OF A CASE.*

By O. W. WILSON, B. S., M. D.,
LAWRENCE, KANSAS.

The case I am about to report fell into my hands by accident; it is out of my line at present. My practice for two and a half years has been confined to the Indians and employes of Haskell Institute and a few families of friends outside. During this time I have not had a case of obstetrics, and my practice among very young children has been virtually nil.

My desire in reporting this case is to call the attention of this society to one of the most important, and as yet but rarely recognized diseases of very early childhood. Dr. Kelly, of Baltimore, says: "Few men outside of the rank of pure specialists are aware that such a disease as cephalhæmatoma exists." Cases which occur in the practice of the general practitioner are diagnosed and treated by him upon "general principles."

The literature upon the subject is very meagre. In several works upon obstetrics the subject was scarcely mentioned and in none that I consulted was I able to find a satisfactory description of the disease, and if, as Bouchacourt says, the disease occurs once in 250 newly born children, the subject is certainly an important one; for a man with a moderate obstetrical experience will be likely to have one or more cases, the treatment of which demands decision as to their nature and the course to be pursued.

Cephalhæmatoma is a circumscribed blood tumor lying between the periosteum

* Read before the Eastern Kansas Medical Society and Golden Belt Medical Society—joint meeting, Topeka, Kan., April 7, 1892.

and one of the flat cranial bones, usually appearing from a few hours to a few days after birth, gradually increasing in size until it forms a tense round or ovoid swelling.

The commonest seat of these tumors is over one or both parietal bones, but owing to the fact that the periosteum is more firmly united at the sutures the tumor never crosses a suture, but is confined to a single bone. We may have double or even multiple cephalhæmatoma.

The skin over the tumor remains normal in appearance, is painless except as in my case continued pressure caused restlessness; we have no pulsation, no perceptible decrease on pressure nor increase in size when the child cries, differentiated in these respects from meningocoele.

In a few days generally—but in my case, weeks—there appears a hard bony rim around the tumor one to two millimeters in height, which gradually becomes more prominent, the tumor receding through this craterous like opening simulating somewhat a depressed fracture of the skull.

The disease is much more common in males than in females, according to Bouchard in the proportion of 34:9. Why of greater frequency among boys? I have seen no explanation.

As to exciting causes there is a difference of opinion; some think it due to intra-uterine causes, while others think it due to injury—however slight—inflicted during birth. The fact is it may occur, as in the case here reported, in natural easy labors where no forceps are used.

Valleix and Paul Dubois have shown that in the newly born the external table of the skull is porous, vascular, incomplete and partially absent.

The diploic vessels therefore are almost exposed, and it is easy to understand how a trifling pressure applied to the yielding head of an infant during delivery may cause the pericranium to glide upon the subjacent bone and by a slight injury to the vascular connections produce a hæmorrhage. The diagnostic points are time of appearance, tendency to increase in size, circumscribed and lateral, non-pulsating, painless and non-reducible.

The prognosis is generally favorable.

The treatment advocated is the let-alone-treatment, the tendency being for the tumor to be gradually absorbed and

disappear spontaneously. Where suppuration takes place, incise, thoroughly evacuate and treat antiseptically.

The above I have gathered from different articles upon the subject from which we would infer the diagnosis to be plain, prognosis I have said favorable and treatment dogmatic. How fully all these indications were apparent in my case will be shortly seen.

Mrs. W., multiparæ, mother of four children, all healthy, confined October 7th, 1891, labor was of short duration and as she expressed it the easiest time she ever had.

The physician was called early but scarcely got there before labor was completed. Child male, average size and seems perfectly healthy. The physician came once or twice after and found mother and child doing so well he did not deem it necessary to prolong his visits.

I was called in about the fifth day. The child up to that time had not had a natural operation from its bowels, medicine had been given several times, followed by injections. I was called to correct this bowel trouble. The mother had plenty of milk, she said, but the child was very poorly nourished. Its little legs and arms were very much wasted. It was plain to see that its food was not being assimilated.

I prescribed one-thirtieth grain of calomel every two hours and this not having the desired effect, I increased to one-twentieth grain which after one or two doses, produced quite a free operation from the bowels.

I found it necessary to keep up this treatment giving one tenth grain calomel daily to get its bowels to operate at all.

About the sixth day erysipelas appeared on the right hip, which in a few days had extended involving the thigh, leg and foot respectively, fading from above, as it progressed down the limb. When the disease had about disappeared from the right limb, it next appeared in the penis and scrotum which became very much swollen and very angry in appearance. From here the erysipelas extended down the left limb, thence into the arms, hands and face and small patches on the trunk. This trouble I treated by keeping the affected parts wrapped in absorbent cotton and smeared with oxide of zinc ointment. The scalp was not attacked by the erysipelas.

We made a persistent and stubborn fight against this dread disease, at one time the little one being almost enveloped in cotton and smeared all over with the ointment.

The erysipelas had all disappeared in about four weeks with the exception of resultant abscesses on top of the right foot and middle toe and back of left hand, all of which when ripe were opened, thoroughly cleansed and drained.

Up to the time of the appearance of the erysipelas no tumor had been noticed; this might have been due to the fact that the cephalhæmatoma was developed on the occipital bone and it would not be noticed as quickly there as on the side of the head. About the ninth day was the first time my attention was called to a swelling on the back of the head. The tumor was then as large as a good sized hickory nut, ovoid in shape, quite soft and as I thought somewhat reducible; situated on the occipital bone almost immediately over the posterior fontanelle. I expressed my fears to the family that it might be a meningocele and gave a grave prognosis.

My plan of treatment was to keep a large wad of absorbent cotton over the tumor, held in place by means of a tight fitting cap; this I thought would distribute the pressure and prevent irritation of the skin over the swelling.

As time went on, I saw the case every day. I examined carefully for the bony rim but could not make out any. About Nov. 20, five weeks after the tumor was first discovered, I could make out quite distinctly the bony rim. The tumor was now as large as a hen's egg, tense but painless and no signs of inflammation. I determined now if it did not begin to subside in a few days to aspirate and apply pressure.

On Nov. 25th I was called in haste, the tumor had broken they said but the child was still alive. I went immediately, found the baby sleeping quietly; the tumor had ruptured, saturating the cotton. The character of the discharge was pus mixed with blood. I washed it out thoroughly, applied carbolated cosmoline on cotton and bandaged. In a few days the opening had entirely closed, no signs of the tumor save the elevated bony ridge which gradually closed, which smoothed down and in ten days presented a perfectly normal appearance. The child now is in good condition, bowels regular, is well nourished, has

grown fat and with the exception of a little undersize is as healthy looking a child as there is in the family. Surely the little fellow has earned the right to live, and has shown the world that a new born infant can make a good fight against disease.

ÆTIOLOGY, WITH SUGGESTIONS AS TO TREATMENT, OF ACUTE (SPASMODIC?) OBSTRUCTION OF THE STRICTURED MALE URETHRA.

By W. M. L. COPLIN, M. D.
PHILADELPHIA.

ADJ. PROFESSOR OF HYGIENE AND DEMONSTRATOR OF PATHOLOGY, IN THE JEFFERSON MEDICAL COLLEGE; ADJ. PROFESSOR OF PATHOLOGY, IN PHILADELPHIA POLYCLINIC; A. A. SURGEON, MARINE HOSPITAL SERVICE; PATHOLOGIST TO ST. AGNES HOSPITAL ETC., ETC.

For the most part the teaching with regard to acute or spasmodic urethral stricture is, in my opinion, incorrect. As is well known, the almost universal opinion is that the condition depends upon a spasm of urethral circular muscular fibres, which, superadded to an already diminished lumen, causes its entire occlusion. In the writer's opinion, a far more lucid explanation is to be found in applying our knowledge of inflammatory processes in other mucous membranes. To briefly summarize this we recall that there are three distinct stages in an inflammation of a mucous membrane:—1st, hyperæmia or a determination of blood in the submucous capillaries, during which period the membrane is dry and beginning swelling is evident; 2nd, exudation into the submucous areolar tissue of the nutrient inflammatory products, thus giving rise to more swelling and a beginning relief of the submucous tension by intercellular transudation and epithelial desquamation producing rapidly the third stage of free mucous flow, during which the submucous areolar tissues are relieved of their serum and the swelling subsides.

No one can deny that the above briefly outlined facts apply to the mucous membranes of the nose and upper air passages. Why not to the urethra? It will not be infrequently observed that while the so-

called "spasmodic" stricture is active, a similar "spasmodic" condition may be observed in other mucous membranes. The next time you have a so-called spasmodic stricture to deal with, please inquire into the other points, and nine times out of ten, you will find that the mucous membrane of the nose is also swollen as manifested by the "stopped up" head with which we are all more or less familiar. If we stop to think we will see the very apparent reasons for this. All cases of spasmodic stricture of the urethra develop from causes which give rise to congestion or hyperæmia of other mucous membranes, viz:—exposure to cold, intemperance, or, we may have hyperæmia, indeed, a perfectly developed catarrhal process in the urethra, following sexual excesses and in this as is well known spasmodic stricture, so-called, not uncommonly manifests itself. The occlusion of the urethral calibre occurs during the first two stages of the acute inflammatory process, and hence is transitory in respect to time, giving rise to the idea usually associated with spasm. In support of the idea advanced in this article, there are certain therapeutic points of great value. Thus, in the medical treatment of spasmodic stricture, empiricism has demonstrated that those remedies which favor an active cutaneous circulation, (thus indirectly depleting the mucous membranes by abstracting blood from the engorged submucous vascular supply and favoring lymphatic return of the inflammatory transudation) without a single exception are beneficial in the so called spasmodic stricture. In other words, treat the inflammation, acute in character, exactly as we treat similar conditions affecting for example, the nasal or bronchial mucous surfaces. Secure hyperactivity of the superficial circulation, by hot baths, hot fomentations opium and belladonna, or their alkaloids, and other remedies having similar physiological actions. Check, if possible, the determination of blood to the mucous membranes exactly as you would in impending laryngitis or acute coryza, in neither of which you would use a bougie, nor should you in the urethra unless the symptoms be urgent and the dysuria demand immediate relief. This, of course, may, in many cases, be positively indicated.

Turning to the surgical treatment or rather instrumentation, does it not bear out the assertions herein made? When

passing the bougie or catheter *all* admit that when the obstruction is reached the greatest care must be used. Why? We are told that the spasm will be thus overcome. Is it not equally likely that the pressure slowly displaces the œdema and thus renders the track patulous? If a bougie be introduced and immediately withdrawn, the urine flows freely, is spasm so easily overcome, and does it not recur more rapidly? The œdema returns slowly and if the patient be past the second stage of the inflammatory process, it does not return at all. The same is true if, after instrumentation, the patient be put to bed and medical treatment, as already advised, be fully carried out. Again, we are all too well acquainted with the little effort demanded in this class of cases in order to induce a false passage. Does spasm offer any adequate solution for this? If spasm be added to an already fibroid wall, is it likely to prove a macerating agent? Certainly not. (Edema explains this peculiarity fully; as the swollen and softened membrane pits and pockets with the greatest ease and thus facilitates puncture upon the slightest use of force, and when once punctured the very swelling continues obscuring the normal passage and renders re-entrance a practical impossibility, the opening once made, remaining open, just as a trocar puncture in anasarca, which is naught but general œdema. There are other reasons for considering this condition one of acute swelling rather than spasm, but space forbids more detailed review. No reference has been made to the extremely small quantity of muscular fibre in the urethral wall, nor to the fact that sufficient inflammation to induce a stricture must alter the contractibility of the little present. Lastly, it is freely admitted that dysuria due to acute inflammation of the prostate, is caused by the swelling of that organ and not to any imaginary spastic condition. I cannot for a moment assume that there is present anywhere in the urethra sufficient involuntary muscular tissue to offer serious resistance to the urinary flow, while to my mind, a mucous swelling, which, in the glottis is absolutely obstructing under the most violent efforts of the powerful muscular apparatus of respiration, may afford ample cause for obstruction to the egress of the normal contents of the urinary bladder through an already narrowed urethra.

SOCIETY REPORTS.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Scientific Meeting, March 22, 1892.

DR. F. H. EDSALL read the paper announced for the evening, entitled:

REFLEX HEADACHE. (SEE P. 727.)

DR. DAVIS: Taking the subject of reflex headache as a whole, the paper touched on but a very slight cause of reflex headaches, compared to the many other reflex headaches. Indeed, I am not certain if you eliminate neuralgia and organic troubles, such as tumors and the like that produce pain in the head, if there is any headache that is not reflex. We know the stomach when disordered will produce headache, and many different organs in the body will produce headache; possibly many of the headaches we can not trace to the exact organs which are affected are reflex. No doubt, the eye in its impaired refraction causes many headaches. On the other hand there are many defects of the eye, even those mentioned in the paper to-night, which will not cause headache, if the general system is in perfect order. I recall very distinctly a case that came under my observation. A patient of mine suffered very considerably with headache. I believed the liver was the source of these headaches along with the fact that she resided in a malarial country. The patient visited a neighboring city, was taken with the headache, was sent to an oculist, who found what is present in almost every eye, a slight degree of astigmatism; indeed, it is an exception for an eye not to be astigmatic, but this in the course of nature, in a healthy body, can be accommodated, so that it really produces no trouble until the system is out of order in some other way; hence in the case I speak of, they went to an oculist who found there was some astigmatism, put on a glass which thoroughly overcame this, but the headaches persisted. The patient returned and came under my care, and was put under treatment to relieve the liver and the bad digestion, and she never put the glasses on again until another attack of the liver would occur. There was marked astigmatism, but it would not cause the headache. The natural mechanism was per-

fectly able to overcome it until the system was out of order in other ways. And so it is in many of the forms of refraction of the eye, not only when the general health is impaired, but as you advance in age, as you grow older and can not overcome it, it will give rise to difficulties which you never knew you had. If we would just simply stop at the thought of reflex headaches and stop at the eye, I claim we would stop at a very small proportion of the headaches that are caused from reflex action, and many of the so-called headaches from eye strain are also caused by a disordered system, that if corrected, the eye strain itself would not amount to as much as sometimes we are wont to find in that respect. I would call attention to the fact that it has also been my misfortune to meet with a number of reflex headaches that were caused by the glasses the patients wore, sometimes a perfectly fitted glass. In a very short time the patient, getting rid of whatever trouble existed, finds that the glasses which were fitted at first are entirely too strong, with the old accustomed power of accommodation, and really finds these glasses producing headaches. In quite a number of cases I have had patients remove glasses which at one time fitted them very nicely, and after being removed their headaches were benefited. Of course, this is not to be blamed on the oculist, but certainly there is a necessity for the patient going frequently to see that the glasses are perfectly adjusted, and not depend on the fact that he went once and had them fitted.

DR. GRUBE: I am one of those who believe the oculist finds defects in a great many eyes, and I am also one of those who believe the defects are there. It is but a part of our life that we have defective eyes. The defects are there, and are to be met and recognized, and these defects cause headaches in a great many more cases than we have any idea. We sometimes fail to remember that we are only a link of a long chain of man's history and forget that man's eye like the eye of the lower animals, is built for long range. Man used his eyes for long range for many years, and it is only in the last few generations, since the introduction of printing, that man has taken short range for his eyes. We find our eyes are not built for that purpose. A child is sent to school, and if hypermetropia is not there already it is soon developed by the close work, and I think an investi-

gation would show a large percentage of these eye defects to be in school children, showing the necessity of their being corrected, and I would never undertake to treat a case of chronic headache until I had that element eliminated, until I had the patient examined by an oculist, and that part corrected. We have other reflex headaches besides these. We have others which are not reflex, and when the physician has fitted glasses on his patient and dismisses him he has not done his whole duty. One other great element of these headaches, while it is not exactly reflex, is generally blamable on our civilized life, and that is the defective elimination of the uric acid. The great amount of meat diet, of nitrogenous food, must be eliminated from our system, and when the kidneys fail to eliminate this we have the troublesome headaches, which are so very persistent, and which will persist as long as we have the nitrogenized food there.

DR. ALLYN: In regard to the correction of the eye for the relief of headaches, we all recognize, of course, that we have a high degree of hypermetropia, or astigmatism. When a person gets to be 20 or 25 years of age, daily accommodations make glasses necessary. Many times that degree of hypermetropia, or astigmatism, may be in the eye of a patient without producing the headache of which we are speaking to-night. There is another fault in which our work is employed. It is in the correction of low errors in the hypermetropia, especially such errors as the optician ordinarily overlooks. If you will notice a paper published in the journals recently you will see that there is an array of cases of headaches where there is the slightest degree of astigmatism. There is one point I might add, that even if the glasses are found unnecessary after the health has been restored, there is yet a field for their employment. If a person has a headache without the glasses every week, but with the glasses, once in two or three weeks, their use is valuable as far as any other remedy. A glass that may not fit perfectly, may not restore perfectly, but oftentimes has its use as a remedy.

DR. EDSALL: In reply to Dr. Davis' first point, I beg to state that I had originally intended to make the paper wider than it proved to be, but I found it getting beyond me in point of time which I had to complete it, and although I had hoped to

touch on the other headaches, which I am perfectly well aware exist, I found it would be impossible for me to do so and make the paper at all worth reading. I had good authority for stating that there are but few causes of headaches in children at least. The authority to which I refer is Dr. Seguin's article in Keating's Encyclopedia of Diseases of Children.

In that, if my memory serves me right, he states specifically that there are but two causes of headaches in children, one is eye strain and the other presbyopia. As to Dr. Davis' point in regard to the universality of astigmatism, this is well taken, and I will state that but few cases are on record in which the eyes were not to a degree at least astigmatic. The degree of astigmatism which causes trouble varies very much in different patients. In one patient it will cause a great deal of trouble, while in another patient it will be overlooked for a long time. I have been surprised to find the amount of astigmatism in existence, and work comparatively comfortably carried on. I have a case under my care at the present time, and the patient for years has been able to carry on all the duties of life, and has suffered comparatively little until the age when the hardening of the lens made the astigmatism uncomfortably apparent. Presbyopia always brings out defects of this character, and hypermetropia as well, and if the defect is not felt early in life, it will be felt after presbyopia intervenes.

As to glasses causing headaches, here again I agree with Dr. Davis. These glasses prescribed under mydriatics, in all existing defects of the eye do, for a time almost invariably when first put on cause discomfort to the patient. There are also some patients who are able to adapt themselves with little or no trouble, but if the glasses are not put on until after this effect has disappeared, the difficulty of accommodating them is felt much more severely than it would be otherwise, and this difficulty is sometimes so very apparent as to cause headache in itself; but if the patient persists he will find that this factor in causing headaches will shortly disappear. Dr. Allyn brought up some very interesting points. The low grades of astigmatism sometimes cause more suffering than higher degrees do, largely, because, as Dr. Allyn says, they are overlooked. Higher degrees produce so much discomfort that

resource is soon had to the ophthalmologist for relief, but the low grades, unless careful examination is made, are overlooked time and time again, and the patient suffers without relief until by chance he falls into the hands of some one who recognizes it, and the defect is corrected. Dr. Chisholm, of Baltimore, before the American Medical Association, said that all cases of astigmatism should be corrected. In some cases in my experience, astigmatism will cause no discomfort for at least some time, but in other cases it causes considerable discomfort. It is no quick or easy matter to correct these defects even when time and patience are both unlimited. I am well aware that eye strain is not the only cause of reflex headaches, but I still stand by the assertion that it is the most common cause.

SELECTED FORMULÆ.

ANTI-EMETIC IN INFANTILE GASTRO-INTESTINAL CATARRH.

Tincture musk.....20 drops.
Red wine.....15 grms.
Syrup.....15 "
Infusion saleyl.....60 "
Sig. Small teaspoonful every two hours.

—N. MANDESTAMM, *La Semaine Médicale*.

ANTISEPTIC SALVE.

The following (*Lo Sperimentale*. No. 18, 1891) is well recommended as an antiseptic salve:

R Zinc oxydat.....decigrms. 2.
Zinc chlorat.....grms. 1.5.
Gelatin....." 30.
Aque....." 30.

METRORRHAGIA.

The following formula is spoken highly of in metrorrhagia:

R Ergotin pur.....5 j
Aq. fontan. dist.,.....
Aq. menth. pip.....5 j 1/4.
Syr. cinnamon.....15 v.
Sig. One to two tablespoonfuls every hour.

—*Gaceta Medica Catalana*, 12, 1890.

TYMPANITES ACCOMPANYING METRITIS AND PERITONITIS.

The following formula is recommended:

R Naphthol,
Magnes. carbonat.,.....5 j
Carb. vegetabil.,.....5 j 3/4
Essent. menth. piparit.,.....gtt. x.
Sufficient for fifteen powders.
Sig.—A powder to be taken whenever the distention becomes distressing.

—*El Siglo Medico*, p. 606, 1890.

ACID DYSPEPSIA.

The following (*Med. Record*) often affords relief in cases of persistent sour stomach:

R Sodii salicyl.....5 j
Spt. vini gall.....5 j.
Solva et adde,
Syr. aurant. cort.....5 j.
Vini albi fort.....5 liij.
M. One tablespoonful before meals.

FOR ODONTALGIA DUE TO ACUTE PULPITIS.

When toothache is dependent upon acute inflammation of the dental pulp, the distressing symptoms to which the condition gives rise may be relieved by introducing a bit of cotton impregnated with one of the following solutions into the cavity of the carious tooth or teeth, after thorough cleansing:

R Menthol.....gr. xxxvj.
Chloroform.....15 j. M.

R Cocaine hydrochlorate } 55 gr. iv.
Morphine hydrochlorate }
Creasote, sufficient to make a paste of creamy consistence.

R Morphine sulphate.....gr. liij.
Atropine sulphate.....gr. jss.
Distilled water.....15 j M.

—*L' Abeille Méd.*

TREATMENT OF SCABIES.

Kaposi recommends the following plan of treatment, which has been successfully carried out for ten years in Vienna Clinic, in about five hundred patients each year:

R Florum sulph.,
Ol. tagi.....55 30.0
Sap. vir.,
Axung. porcel.....55 40.0
Cret. alb. pulv.....5.0
M. Sig. Apply once without previous bath and wrap patient in woollen blanket.

In private practice the patient can put on a suit of tight-fitting wollen underwear and go about. Wool has the advantage over linen that it does not soak up the ointment, but leaves it in contact with the body. A bath is to be taken only after the skin has begun to peel. A bath before the ointment makes the skin unnecessarily liable to irritation.—*Deutsche Medizinische Zeitung*.

ACUTE VAGINAL CATARRH.

The following injection is used in acute vaginal catarrh:

R Zinci sulph.....5 jss.
Aq. fontan. dist.....f 3 xliij.
Sig. Sufficient for one injection.

—*Revista Clinica e Terapeutica*, 12, 1890.

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LEADING ARTICLES.

THE TREATMENT OF ENDOMETRITIS.

The treatment of endometritis, at the present time, appears to be going through one of the reactionary stages so common in therapeutics. When Bennett's pathology concerning uterine, especially cervical, inflammation was accepted, and when knowledge of pelvic inflammation was in its infancy, it was the custom to attack endometritis with caustics—potassa cum calce, chloride of zinc, nitric acid, etc.—for the cure both of supposed endometritis and metritis. Later, under the lead of Emmet, the existence of inflammation of the endometrium was denied, the conditions usually classed under that name regarded as due to venous congestion produced by inflammation of the perituterine tissues, or by tumors or certain conditions of remote organs. Under this theory the conditions of the uterus were purely secondary, and were to be improved by the use of treatment directed against the causative factor. According to Emmet this was usually cellulitis. The theory of Emmet did not gain universal acceptance, but it profoundly modified the methods of treatment employed in his country.

The propriety of making intrauterine applications came to be questioned on the ground that the uterine condition was secondary and not the primary disease. Moreover, it was found that intrauterine applications were not without danger—in certain cases peritonitis and even death resulting from them. Experience showed that peritonitis was induced, usually, in cases in which it had previously existed, or when the uterine syringe was used in cases in which the cervical canal was narrow—in these cases uterine colic resulted immediately, at times to be followed by peritonitis. It was found also that frequently intrauterine treatment did

not effect a cure, and that it was always painful and tedious.

Likewise the followers of Hodge held that in cases in which uterine displacement exists, the displacement is the disease and the intrauterine condition but a symptom which will disappear when the displacement is corrected.

The foregoing facts together with the wide acceptance of the theories of Hodge led many practitioners to abandon intrauterine applications. Prominent among them is Goodell, who voices a very general opinion when he says that his results have been better since he gave up the old methods. Those who have abandoned intrauterine applications restrict local applications to the vagina and the canal of the cervix, and pay due regard to the general health. Intractable cases and those inducing hæmorrhages are treated by dilatations and curetting under anæsthesia—care being taken to operate only on uncomplicated cases of endometritis. The recognition of the fact that a large proportion of the cases of endometritis are complicated by salpingo-oophoritis, peritonitis, and pelvic tumors is most important. This was insisted upon by Noble in a paper entitled *Minor Uterine Surgery*, read before the Philada. Obstetrical Society (*Annals of Gynecology and Pædiatrics*, Jan. 1891.), as being the greatest advance made in the subject, from the standpoint of therapeutics. This fact explains the want of success frequently met with in the past, and also many of the accidents following intrauterine treatment.

Apparently the subject of endometritis has reached a satisfactory state. It was recognized as a primary and as a secondary condition—as due to puerperal sepsis, gonorrhœa, and less-defined conditions; as due to uterine and other pelvic tumors; as due to, or at least kept up by, chronic inflammation of the uterine appendages; and as due to certain displacements of the uter-

us. Recently, no new facts in its pathology have been discovered, but the more general recognition of the relation between endometritis and salpingitis—the former preceding and inducing the latter—caused a reaction in favor of intrauterine treatment, on the ground that if the endometritis can be cured promptly that the salpingitis can be prevented. This reaction can result only in good, provided the teachings of the past are not forgotten. Careful diagnosis is imperative, and only cases of uncomplicated endometritis must be selected for intrauterine treatment. This is the key to success, and it cannot be too strongly emphasized.

The tendency at present is to favor the use of the sharp curette after dilatation under anæsthesia, with full asepsis. This is to be followed by packing the uterus with iodoform gauze, and by applications of Churchill's tincture of iodine or of carbolic acid until a cure is effected. This plan of treatment appears to be a sound one for the following reasons: The use of an anæsthetic permits—first, a more thorough examination and a more accurate diagnosis, with the exclusion of all but complicated cases which guards against "setting up peritonitis" so common in the past; second, a more thorough cleansing of the parts with soap and water, and a more thorough use of antiseptics, which minimizes and practically removes all danger; third, a more efficient use of the dilator and curette, thus enabling the removal of more of the diseased tissue. The uterine canal being dilated first by the dilator and then by gauze, applications can be made to the endometrium thoroughly and with little pain. In this way the duration of treatment can be much shortened, and the chances of extension of the inflammation to the tubes minimized.

A danger to guard against in cases of uncomplicated endometritis, is that this reaction in favor of dilatation and curetting under anæsthesia and with full anti-

sepsis, with applications made later to the endometrium through the cervical canal, may induce venturesome men to use the dilator or curette or intrauterine treatment with the applicator or uterine syringe without anaesthesia and without antiseptics, and in cases of endometritis complicated by tubal inflammation. If unhappily this should be the case the poor success and the disasters of the past will be repeated.

THE VALUE OF MASSAGE HISTOLOGICALLY DEMONSTRATED.

The favorable results from the use of massage are too well-known to need repetition. True, the method has its limitations, and a disregard of these has led to some unsatisfactory experiences, but when judiciously employed it has been used on almost every part of the body with most satisfactory results.

Undoubtedly the greatest value of massage is in the treatment of sprains, luxations and juxta-articular fractures. It has been generally conceded that the beneficial results from massage in these conditions have been due to a stimulation of the circulation and absorption, but its exact action had not been demonstrated until Dr. Castex reported the results of a series of careful experiments to the Society of Biology of Paris, at a recent meeting.

The question Castex sought to answer was as to what scientific explanation could be offered for the results obtained by massage. Castex proceeded to produce a variety of traumatisms upon large dogs, such as sprains, contusions, luxations, etc. The injuries were always made symmetrically—that is similar injuries on two corresponding parts. The one part to be massaged and the other treated otherwise. Both the immediate and ultimate obvious results were carefully studied; and finally, the muscles, both massaged and not massaged were carefully examined microscopically. The nerves and blood-vessels in

the region of the traumatism were also examined. The entire course of the experiments extended over a year.

The immediate results of massage were a lessening of pain and a diminution of swelling. The later results were chiefly an absence of ultimate atrophy of the parts. The dislocated shoulder of a dog which had been massaged, ultimately measured 30 centimetres in circumference, while the opposite shoulder which had been similarly injured but not massaged, measured only 28 centimetres.

The histological examinations of the parts yielded most interesting results. The muscles of the traumatized region on the side that had not been massaged showed: first, a dissociation of the muscular fibres, well marked by longitudinal striæ; second, a hyperplasia of the neighboring connective tissue; third, a slight enlargement of the muscular fibres; fourth, the sarcolemma was usually found intact. On the contrary, the muscles of the traumatized region of the side that was massaged were entirely normal. The vessels on the non-massaged side showed evidences of a hyperplasia of their outer walls, and the nerve branches near the injury were irritated and gave evidences of perineuritis and endoneuritis. On the side massaged both arteries and nerves were normal. These results were found to be constant.

Dr. Castex's experiments are of sufficient importance to awaken the interest of every practitioner, especially those who have made use of massage with unsatisfactory results; and they certainly deserve supplementing and extension by other investigators.

A NEW ANTIPYRIN REACTION.

L. van Itallie states, in the *Apotheker Zeitung*, that when nitric acid is added to a solution of antipyrin, and the mixture heated, it will in a little while turn cherry-red. The intensity of the reaction depends upon the amount of antipyrin in the solution, and upon the quantity of acid used.—*Ex.*

BOOK REVIEWS.

LECTURES ON SURGICAL PATHOLOGY:

Delivered before the College of Physicians of Philadelphia, 1891-1892. By Roswell Park, A. M., M. D., Professor of Surgery, Medical Department, University of Buffalo; Surgeon to the Buffalo General Hospital; Fellow of the German Congress of Surgeons, etc. Reprinted from the *Annals of Surgery*, Vols. XIII, XIV and XV. St. Louis: J. H. Chambers & Co, 1892.

These lectures upon selected topics in the domain of surgical pathology constitute the Mütter Lectures of 1890-1891, delivered before the College of Physicians of Philadelphia. They may deservedly be called one of the most complete reviews of the subjects treated by contemporary authorities, and fully evince the scholarly attainments of the author. They embrace the facts obtainable from all modern methods of research, and these are presented and elaborated in a manner which gives to the reader a clear, comprehensive idea of the value of the knowledge we already possess, as well as indicating the lines which may be hopefully pursued in future work. Perhaps the most salient point in these lectures is the demonstration by innumerable facts of the absolute necessity of the young surgeon of to-day, who hopes to excel in his profession, to acquaint himself thoroughly with the technique of the modern methods of investigating pathological processes, and to have special proficiency in experimental physiology and pathology, pathological histology, bacteriology and general pathological facts. Perhaps the greatest good that will be accomplished by these thoughtful and well-prepared discourses, will be the stimulus to increased labor in these studies which they are calculated to inspire.

The introductory lecture dwells upon the importance of surgical pathology, and cites the life-work of several eminent surgeons as examples of the necessity of this factor towards success. It then presents the subject of inflammation in accordance with the latest views concerning its rational classification into varieties; following this comes an interesting account of the formation of ptomaines and toxins by bacteria, as well as a definition and classification of them. A notable feature in this chapter is a table showing the variation of hæmoglobin in health and different diseased states. In the second lecture the consti-

tution and formation of pus is ably dealt with, and the name "prophylactic membrane" is suggested for "pyogenic membrane." In this lecture Dr. Park refers to the possible value of the examination of the blood in septic states as a means of diagnosis, and quotes the experience of Eiselsberg, who has reported four cases in which pyogenic cocci were discovered in the blood prior to the occurrence of septicaemia.

The third lecture is a most important one because it deals with "pyogenic organisms," which are divided into "the obligate" and "the facultative." In this lecture the author has gathered the gist of modern research in this direction and presents the subject in a clear and forcible manner. Both sides of vexed questions are freely discussed, although he does not hesitate to advance his personal views when they seem called for. A valuable addition to this lecture is the appended bibliographical index.

The fourth lecture is devoted to the consideration of "The Results of the Absorption of the Products of Wound Infection." The conditions formerly grouped popularly under the terms "blood-poisoning," Park divides into five forms, as follows: I. Surgical fever. II. Intestinal toxæmia. III. Sapræmia. IV. Septicæmia. V. Pyæmia. This lecture is very interesting and well worthy of careful reading, and especially commendable is the restriction of the term *sapræmia* to toxæmia resulting from infection from a local source *outside* the tissues of the body proper.

The fifth lecture discusses peritonitis, and the tests applicable to antiseptic substances. It contains some admirable suggestions regarding these important subjects which space will not permit us to refer to at length. The method by which an antiseptic should be properly tested is given as practised in the Hygienic Institute in Berlin. It is really the mode insisted upon by Koch.

In the following lecture Park takes up the subject of tetany and tetanus, and gives us the best thought of the day concerning their causes, nature and symptomatology. The review of the various theories concerning the aetiology of these affections is good reading, and is followed by the proof of the specific microörganic causation of tetanus.

The remaining lectures consider in de-

tall many of the diseases in which bacilli have been proven to be present ætiologically. The remarks on tuberculosis are exceedingly interesting, and should be read attentively by every surgeon.

It is impossible to notice at length the many commendable points in Dr. Park's lectures. They are modern, practical, well written, and embrace the best that has been discovered concerning the affections discussed. We can recommend these lectures as a concise and successful endeavor to present a really modern *résumé* of the advances in the field of surgical pathology.

LITERARY NOTES.

—"The Philadelphia Polyclinic" is the title of a new quarterly devoted to practical scientific medicine, and is published by the Philadelphia Polyclinic. The subscription price is \$1 a year. Each number contains 60 pages. The contents are made up of lectures, clinical notes, favorite prescriptions and book notices. The articles are very good; the same may be said of the typographical appearance.

—The most recent addition to medical periodicals is a monthly entitled *Food*. Each number contains about 60 pages. The subscription price is \$2 a year. The present number includes articles by Dr. J. Madison Taylor, Dr. G. M. Hammond, Katherine Armstrong, Ward McAllister, M. E. W. Sherwood and Florence Morse. The journal contains much matter of general interest to the laity, and is illustrated.

—P. Blakiston & Co. announce that they will shortly publish a work on *Materia Medica* by Dr. Wm. Hale White of Guy's Hospital. It will be printed in one compact, handy volume. The American copyright edition will be edited by Prof. Wilcox of the N. Y. Post Graduate School. Dr. White does not do inferior work, so that we are assured that the promised book will be one of value.

OINMENT FOR SYCOSIS.

R	Acid, tannic.....	gr. xxiv.
	Sodii lactat.....	3 j.
	Zinci oxid.....	3 ij.
	Amyli.....	3 j.
	Vaselin.....	3 j.
	M. Sig. Apply twice daily to the skin carefully shaved.	

Rosenthal, *L'Union Méd.*

PERISCOPE.

THERAPEUTICS.

RECENT DRUGS IN MEDICAL PRACTICE.

Dr. Barclay, of Banff, the President of the Aberdeen Medical Society, in an address on the "Recent Drugs in Medical Practice," said,—Dealing first with hypnotics, he found the bromides useless, but of benefit when combined with the tincture of hyoscyamus, in infantile convulsions, menorrhagia, epilepsy. Ten to fifteen grains each of bromide of potash and antipyrin were especially beneficial in epilepsy. Chloral hydrate, if continued for any time, required to be used in dangerously large doses; amylene hydrate, sometimes induced sleep, but was uncertain in its action, and the same result occurred in the use of urethan. Paraldehyde, he found satisfactory, but chloralamide not infrequently induced delirium and disturbed sleep.

Sulfonal had proved the most successful of the hypnotic group without any unpleasant effects, and was especially beneficial in cases of delirium tremens and asthma. Passing next to antipyretics and analgesics he had found gelsemium useless. Antipyrin acted both as an analgesic and an antithermic, but was liable to be followed by great depression, and on this account, he deprecated the existing freedom of its sale by druggists, without the prescription of a medical man. Antifebrin was a valuable antipyretic, but of little use as an analgesic.

Both as a febrifuge, and as an analgesic, Dr. Barclay had found phenacetine most useful, and he adduced several striking examples of its value. The addition of quinine enhanced its effect, and this combination, he eulogized in the treatment of acute rheumatism and herpes zoster. Exalgine has acted well as an analgesic but required careful handling.

The president next spoke of saccharin, oxalic acid and salol. He said saccharin and salol in 5 grain doses and oxalic acid in one-half grain doses, had been successful in the treatment of chronic cystitis. Salicylate of ammonia had proved of value in cases of Bright's disease, by causing the disappearance of albumen from the urine. In phthisis, creosote was not read-

ily borne, but the oil of eucalyptus gave good results, and in the night sweats, he had found the administration of agaric acid and agaricine, very serviceable.

Ichthyol and aristol in ointment did well in the treatment of psoriasis.—*British Medical Journal*.

ETHER AS A STIMULANT AT THE TEMPERANCE HOSPITAL.

A correspondent of a contemporary expresses surprise that at a public meeting at the Temperance Hospital it was announced that the internal use of ether is allowed in the hospital in place of alcohol. We cannot think that there is much to justify this difference. Ether drinking is a vice which has but lately in Ireland assumed grave proportions, requiring special legislation. It is affectation to regard the use of such an agent as morally or physically better than the use of approved forms of alcohol. By all means let the physicians of the Temperance Hospital cure disease—where they can do so equally quickly—without alcohol. Such treatment is instructive, but where some form of diffusible stimulant is needed, to prefer ether to alcohol is scarcely the way to promote temperance.—*Lancet*.

THE ACTION OF ERGOT AND ERGOTINE

Wertheimer and Magnin (*Archives de Physiologie*, 1892, No. 1) publish the results of their investigations upon the action of ergot. They find by intravenous injection of ergotine a notable fall in blood-pressure, preceded and followed by an increase. The simultaneous diminution in the size of the kidney indicates that the fall in pressure cannot be attributed to a vaso-dilatation of the abdominal organs. The direct examination of ventricular pressure shows that it results from an enfeeblement of the cardiac contractions. Following hypodermatic injection, ergotine raises blood-pressure without a preceding depression. When injected into the blood, ergotine produces marked contractions of the stomach; in subcutaneous injection, its action upon this organ is still manifest, but less energetic. A preparation known as ergotinine, given by

intravenous injection, raises blood-pressure and slows the heart. In moderate doses, it has no effect upon the viscera.

TUBERCULIN IN THE TREATMENT OF LEPROSY.

Kalindero and Babes (*Revue de Médecine*, 1891, No. 10, p. 817) have reported the employment of tuberculin in the treatment of eleven cases of various forms of leprosy. They found that the general reaction set in about twenty-four hours after the injection. Sometimes a second and a third reaction followed on successive days. Rapid repetition of the injections was followed by cumulative action. In some cases of tuberculous leprosy, small doses were followed by intense and protracted reactions. Local reaction was slight or wanting; exceptionally, it was intense and extensive; it manifested itself by injection of the infiltrated areas and the slow formation of crusts, with desiccation; the general condition was improved, though weakness resulted.—*News*.

THE THERAPEUTIC VALUE OF HÆMOGLOBIN.

In many cases of anæmia where ferruginous preparations are contra-indicated, P. Castellino (*Rev. Clin.*) prescribes hæmoglobin. The following are his conclusions from its use in 15 cases:—

1. The absorption of hæmoglobin is uniformly rapid.

2. It is well tolerated, even by patients having digestive troubles; and never gives rise to symptoms of intolerance, such as vomiting, meteorism, constipation, epigastric oppression, gastralgia, pyrosis, etc.

3. Its favorable actions on the blood is manifested by an increase in the number of the red blood-globules, their resistance, their specific gravity, and their color, their form and diameter soon approaches the normal.

4. Under the influence of hæmoglobin, the general condition of the patient improves, as shown by the return of the appetite, the regulation of the menses, more energetic nutrition, increase of body-weight increased dynamometric force, the favorable influence on the secretion of urea, and the disappearance of various subjective

phenomena of anæmia (erethism dysphagia, gastralgia, palpitation).

5. If the hæmoglobin is not continued until the patient is well, its action is only transitory and soon disappears.

6. In cases of secondary anæmia (carcinoma, tuberculosis, leukæmia, etc.), hæmoglobin is of little or no use, or, at most, the effects are but transient.

7. A daily dose of 0.20 gramme (3 grains) of hæmoglobin is sufficient to obtain a perfect cure.

8. Hæmoglobin is distinguished from other ferruginous preparations by the rapidity of its action, when anæmia is unaccompanied by digestive troubles and when there are no phenomena of intolerance, the latter gives as favorable results as hæmoglobin.

9. Hæmoglobin is pre-eminently indicated in cases of anæmia with serious digestive disturbance, and in the convalescence of fevers and maladies of long duration.—*L'Union Médicale*, December 22, 1891, p. 896.

JAMBUL IN DIABETES MELLITUS.

Dr. H. Hildebrandt, in the *Berliner klinische Wochenschrift*, 1892, No. 1, S. 5, contributes a paper upon the method of action of their now well-known remedy. He believes that it is upon the vegetable diastase and also upon the sugar-forming ferments of the blood-serum, saliva, and pancreatic extract; an analogous influence upon trypsin and pepsin has not been determined. In diabetes, then, it is useful, because it diminishes the change of starch into sugar in the alimentary canal, and in the tissues the change into sugar of glycogen.

Dr. George Foy, in the *Medical Press*, 1892, No. 2749, p. 29, goes over the botany and pharmacology of the drug. After a careful analysis of the literature he concludes that the record is very fluctuating—marked success attained for very unpromising-looking cases by some physicians, and with the most carefully selected cases and perfectly pure samples of the drug others have failed to get any benefit from it. That the drug has an influence on the conversion of starch into sugar is shown by the experiments of Lascelles Scott, T. A. E. Balfour, and G. Sims Woodhead.

TREATMENT OF SHOCK

Chauvel recommends the following treatment of shock, according to *La Médecine Hypodermique* for January, 1892: For the purpose of re-establishing the circulation, the patient is put in an absolutely horizontal position and massaged. He is also given alcoholic frictions and subcutaneous injections of ether. For the purpose of maintaining the bodily temperature, the air of the room is well heated, and the patient is surrounded by hot bottles, or placed in a bath of the temperature of 105° or 110°.

Internally, Chauvel administers alcoholic stimulants, such as rum or brandy, in the dose of from 1 to 2 ounces. He does not employ sinapisms or other inconvenient measures. When reaction has been obtained the stimulants are combined with opium for the production of sleep. Chauvel mentions the intravenous injection of ammonia, as has been used by Penfold and Tibbis. In cases where shock is prolonged, strychnine, digitalis, and belladonna are to be employed, and electricity may be of great service.

THE PHYSIOLOGICAL EFFECTS OF THE FRANKLINIC CURRENT.

Damian, of Paris, has recently published a study upon the above subject.

By means of his experiments he has conclusively demonstrated, that under positive electrization the heart's action is stimulated, and contracts with greater energy, as indicated by sphygmographic tracings. The temperature, with the same insulation, and with sparks, was increased from .025 to .4 of a degree; while with the simple bath, positive insulation there was an increase in the temperature of .5 of a degree.

The production of urea under the influence of the electro-positive bath was sensibly increased, its weight being elevated from 24.64 to 26.3 grammes. The same insulation with sparks increased the daily total of urea from 27 to 28, 30, 31 and 32.68 grammes. The electro-negative bath was followed by an increase in the volume of urine. In no other form of application was the volume sensibly increased or diminished, while under the same insulation with sparks the amount of

urea was progressively diminished; but less with bath. The phosphoric acid in the urine was decreased under the negative electrization, but more so with the positive insulation.

The alkaline phosphates were diminished in the same proportion, but more so with with positive than with negative; less with bath than with spark. The earthy phosphates were decreased under negative, less under positive electrization.

Thus we see by M. Damian's experiments that the heart's action is stimulated, the circulation improved, the temperature augmented, and the excretions increased. Further than this he has not yet demonstrated; but he believes that there are effects which are as yet undemonstrable. A moral or psychic effect is universally conceded; but the above experiments have clearly proven that the influence of static electricity does not end there, as many are disposed to claim.

METHYLENE BLUE IN NEURALGIA AND MALARIA.

According to the *Berliner klin. Wochens.*, No. 39, Drs. Guttman and Ehrlich have found a decided effect from methylene blue in malaria. Ten centigrammes of the chemically pure drug are given in capsule five times daily. Dr. Immerwhar states, in the *Deutsche Med. Wochens.*, October 8, 1891, that under certain circumstances this same drug, given three times daily in dose of from two to five grains, gives relief in neuralgia, muscular rheumatism, and the nerve-pain of herpes zoster, but not in sciatica. Further trial in both neuralgias and malarious fevers must be made before the true value of the drug is known.

BROMIDE OF POTASSIUM IN CERTAIN SYPHILITIC AFFECTIONS.

Dr. Augagneur, (*Deutsche Med. Zeit.*, Jan. 7, 1892,) has found that in certain syphilitics, especially women, there often appears about the sixth or seventh month of the disease a dyspnoea which may have come on suddenly or only after a gradual onset of some eight or nine days which may lead to almost complete aphonia. It is not always a permanent but at times an inter-

mittent aphonia, and for this reason the author concludes that the erythema of the mucous membrane of the larynx, which is usually the only thing found on laryngoscopic examination, can not be the sole cause of the alteration in the voice. In the belief that it is due more to a disturbance of innervation, bromide of potassium has been successfully employed in conjunction with iodide of potassium, as follows:

R	Potass. Iod.	10.0 grammes.
	Potass. Brom.	30.0 "
	Syr. Aurant. Cort.	100.0 "
	Aque. Dest.	300.0 "

S. A tablespoonful twice daily.

ACTION OF THE BROMIDES.

Féré, before the Société de Biologie at its meeting on September 17, 1891, expressed his belief that the results obtained by using bromide of strontium, instead of bromide of potassium, in treating epilepsy, are equally good, particularly after the potassium salt has been taken for some time, although the same doses are employed as of the potassium salt.

In regard to the assertion that persons taking the bromides rarely become tuberculous, Féré finds from experiments on guinea-pigs and rabbits that the administration of these compounds to animals who were inoculated with tuberculosis distinctly increased the progress towards a fatal issue.—*Revue Thérapeutique Médico-Chirurgicale*, November 1, 1891.

THE ACCUMULATION OF BROMIDE OF POTASH IN THE DIFFERENT TISSUES.

Féré and Herbert, of Paris, have recently made some interesting experiments on this point and transmitted their report to the Société de Biologie. An epileptic, aged 64, began December 18, 1890, with 5 grammes daily of potassium bromide, then took six grammes daily, and, beginning October 13, 1891, 7 grammes daily until October 20, 1891. On October 23d he died with pneumonia. The various issues of the body were then carefully examined and found to contain, per 100 grammes, the following quantities of the salt: brain, 0.073; lungs, 0.082; liver, 0.104; spleen, 0.133; kidneys, 0.10; pancreas, 0.043; muscle, 0.062; cartilage, 0.041; bone, 0.087.

A PRACTICAL SUBSTITUTE FOR COD LIVER OIL.

Dr. G. H. Pierce, M. D., writes in the *New England Medical Monthly*:— Since 1889 *Linseed Oil in Emulsion* has been in constant use in my practice. I had found great difficulty in getting many of my patients to take cod liver oil in any form, and when linseed oil in a palatable form was brought to my notice, it required but a few trials to establish its merits.

The preparation known as Linonine is a perfected emulsion, and superior to the *Mistura Ol. Lini* as first presented to the profession.

The writer was probably one of the first physicians in Danbury to make extensive use of the linseed oil emulsion, and did so alone on the merits of the preparation.

Cod liver oil is of course invaluable if the stomach will tolerate it, but there are so many complaints from eructations that it has to be abandoned, often when the system positively demands an oil food. Linonine is borne by a weak stomach, and any after-taste which may arise is only that of the flavoring matter, which is not at all objectionable. The oil is so finely divided in the process of emulsification, and the other ingredients so thoroughly mixed that nothing except a pleasant taste is noticed.

Linonine is indicated in all cases where cod liver would otherwise be used, and in some cases where the latter would not be. We would not think of prescribing cod liver oil in acute bronchitis; linonine, the linseed oil emulsion, is most useful in this affection, for combining the anodynes and sedatives, morphia and chloral, where pain and inflammatory conditions exist, a perfect remedy is produced. No severer test of the worth of a pulmonary medicament could be found than those presented by the various forms and stages of La Grippe. During the great outbreak of this disease in the winter of 1889-90 I prescribed linseed oil emulsion with and without chloral and morphia, according to the degree of acute inflammation and amount of coughing, and obtained the very best results from its use. The very tight feeling in the bronchial tubes is moistened and loosened in the very first stages of bronchitis, and in the last stages the secretions are favorable modified.

Formerly, linseed oil was used only as a laxative, or cure for piles, or applied ex-

ternally in cases of burns. The hindrance to internal use was owing to its disagreeable taste, which has been most beautifully overcome. Linonine it must be remembered is more than a simple oil—it is a compound pharmaceutical product—consisting, in addition to the oil, of hypophosphite of iron, oil of eucalyptus, oil of gaultheria, Irish moss, marshmallow, glycerine and dilute hydrocyanic acid.

In a case which I have at present, of annoying reflex cough, there being a tendency to vomit at each paroxysm of coughing, which has necessarily left stomach in a delicately receptive condition, I prescribed linonine, and the patient at once remarked on the palatableness of the preparation. Now, it was an oil emulsion, and was not disagreeable to a delicate stomach.

How few, with such a combination of stomach and cough, could tolerate a cod liver oil emulsion at such a time. In ninety-nine cases, out of a hundred the returning taste of the fish oil would set the patient against it. Not so with the linseed oil. There is no taste to return to disgust the palate, and the oil is so thoroughly emulsified, and of so tempting a flavor, that the patient anticipates the next dose with a relish. Indeed, it is more difficult to keep one from "downing" the entire contents of the bottle, than to get him to consent to take in moderation the prescribed dose. The Doctor is receiving daily, literature and samples "useful in the treatment of La Grippe;" the field is a prolific one, and every remedy is the best. From my experience with linonine, combining as it does nutritive, alterative and sedative properties, I am satisfied that its efficiency will not be long in being universally proven.

NITROGLYCERIN IN THE TREATMENT OF REYNAUD'S DISEASE.

Cates (*University Medical Magazine*, vol. iv. No. 5, 1892) reports a case of Reynaud's disease—that is, symmetrical gangrene of the extremities—in which great relief was obtained by the injections of nitroglycerin, commencing with $\frac{1}{16}$ of a grain, and gradually increasing the dose up to $\frac{1}{4}$ of a grain, three times a day. The patient grew better, sores healed, and pain disappeared like magic, so that the routine duties of life were again made possible.

THE EFFECTS OF SULFONAL UPON THE CIRCULATION.

The conclusions arrived at by Dr. Sgobbo Francisco, of Naples (*Annali de Neurologi*, Fas. II, 1891), are:

1. That sulfonal is a good hypnotic.
2. That given in doses of 3 grammes it exerts an influence upon the heart and blood vessels, reinforcing the systole and increasing the vascular tone. This action upon the blood vessels is not continuous, for after a certain time there is a dilatation, and a progressive loss of elasticity, beginning first in the vessels of the brain, then extending to the periphery.

MEDICINE.

MOTOR PATHS OF THE SPINAL CORD.

Rossolimo (*Arch. de Neurologie*, Nos. 64 and 65, 1891) has published a long series of experiments upon hemisection of the spinal cord, the cord often being hemisectioned on opposite sides at different levels and at different intervals of time. The author considers that the most important result he has made out is that when in an animal submitted to hemisection of the spinal cord the voluntary movements of the paralyzed extremity come back to their primitive state, this is always brought about by the supplementing of the nervous paths cut by the operation by other paths running on the opposite side of the spinal cord and intact in it throughout the whole of their length from above to below; that is to say, from the crossing of the fibres in the pyramids of the bulb down to the level of the motor roots containing the nervous fibres for the posterior extremity, where they pass immediately from the side of the lesion.—*Brit. Med. Jour.*

A CASE OF SYMMETRICAL GANGRENE OF THE FEET.

Mr. W. H. Brown reports the following case: The patient had always enjoyed good health up to ten weeks prior to admission to hospital, when he was seized with violent and persistent diarrhoea, accompanied with abdominal cramps and surface lividity. This was followed by collapse, which continued for two or three days, during which time he complained very much of pain in both feet. His body

lost its livid hue, but the skin over the anterior half of both feet remained discolored and cold. It was necessary to administer full doses of opium to control the pain. At the end of six weeks a line of demarcation formed and the pain lessened. On admission the granulating surface at the junction of the living and dead tissue was of an unusually brilliant pink color, and the discharge offensive. The heart sounds were normal and vessels healthy (both anterior and posterior tibials could be felt at the ankle); the temperature each night was 100° to 101° F., falling each morning to 98° or 99°. The process of separation was very slow. Three months after entrance, the discharge having become sweet and the temperature normal, the right foot was amputated, the ordinary incision for Syme's operation being used. The bones of the tarsus were found to be softened and infiltrated with pus, the cancellous tissue being replaced by soft cheesy material. The stump healed rapidly. The left foot was removed in similar manner, and also resulted in a firm stump. The patient was discharged four weeks after the second amputation. In ordinary senile gangrene, waiting till the parts have separated, or amputation far above the seat of disease, has been, and is, the method followed by the majority of surgeons. In the present case, when the gangrene was in every respect save one like an ordinary case of senile gangrene, the parts were removed, neither waiting for separation nor amputating above the disease. The result justifies the procedure, as the patient was saved many weeks of waiting, and only suffered the loss of those parts already destroyed by disease.—*Lancet.*

TUBERCULOSIS AND ERYSIPELAS.

Dr. J. Morton, of Mussoorie, describes some experiments in which he has been successful in curing animals charged with the tubercle bacillus by inoculations with the tubercle of erysipelas (Fehleisen's). Extended observation may yet be found to prove that in the erysipelas bacillus or its products we have the cure for tuberculosis. These experiments are the result of six months' labor, and augur a hope, even after the failure of Koch's treatment, that in his trail other observers may yet make a discovery.—*The Indian Medical Record*, October, 1891.

GONORRHOEAL RASHES.

Two articles on this subject are epitomized in the *Deutsche Medizinal-Zeitung* for November 12. One of them, by M. Leon Perrin, was published in the *Annales de dermatologie et syphiligraphie*, and the other, by M. Voituriez, appeared in the *Journal des sciences médicales de Lille*. Of genuine gonorrhœal rashes—i. e., rashes not due to the ingestion of some drug—M. Perrin has been able to find only twenty cases on record, and to them he adds two that have come under his own observation. Dr. A. Blaschke, who summarizes M. Voituriez's article, says, that he himself has never seen a case. According to Voituriez, the gonorrhœal exanthem resembles that of measles or that of scarlet fever and is followed by desquamation, whereas, a copaiba rash is more like urticaria or a polymorphous eruption. The gonorrhœal rash may last for a week, and is usually generalized and often accompanied by fever and angina.

HYPNOTISM AND ELECTRO-MAGNETISM.

In delivering the Saturday evening address at Toynbee Hall last week, Mr. Ernest Hart took Hypnotism and Electro-Magnetism for the subject of his discourse. He traced the history of hypnotic and mesmeric practices through ancient European and Asiatic nations, as well as the existing aborigines of Africa and among the demoniacs of the Middle Age. Sketching the descent of the doctrine of animal magnetism from Paracelsus (who regarded it as an emanation of the divine fluid) to Hansen, Mesmer, Puységur, and Faria, to Grimes, Darling, and Elliotson in America and England, he endeavored to disengage the facts from the delusions and impostures with which the subject always has been, and is still surrounded. He showed that the term "animal magnetism" is a delusion, an example of the common practice of using a word which has no meaning to explain facts which are not understood. From the results of personal investigation of many years' observation, and of experiment on animals he showed that all the external causes commonly alleged to be efficient, such as the will of the operator, or any sort of fluid—magnetic, vital, or psychical—might be successively eliminated without in any way affecting the suc-

cess of the result. Hypnotism and all its aliases—mesmeric, electro-biological, or "magnetic"—he showed to be subjective; second sight, clairvoyance, and thought transference to be impostures or self-deceptions. He then discussed the remarkable effects of suggestion on the hypnotic, which transcended many of the marvels and impostures of the stage-impostors who abused and imitated them. Referring to the long series of efforts to render hypnotism of therapeutic value, although they were old and conducted by a number of able men, he pointed out how meagre and valueless they were in the ablest hands, whether of Bernheim or Charcot, and how little promise there was in them. Finally, he referred to the evil results of hypnotic practices in the hands of unscrupulous or unskilled persons, their mischief on stage performances, and called for their prohibition in such hands in this as in Continental countries. The address was received with profound attention and frequent applause, and has been widely commented on with approval in the press.—*Brit. Med. Jour.*

THE PARASITE OF IRREGULAR MALARIAL FEVERS.

Dr. M. W. Sakharoff (*Ann. de l'Inst. Pasteur*, July 25th, 1891) has a note on certain parasites occurring in the blood of patients suffering from irregular malarial attacks. These are different from those found in the "regular" fevers, being small pale bodies enclosed in the blood corpuscles, endowed with amœboid movements, and assuming a round shape when at rest. In course of development this amœboid condition undergoes the following modifications: Pigment granules appear, mobility is gradually lost, and the form becomes round. The granules unite into a mass at one side or in the middle of the parasite, and a nucleus previously visible can be no longer seen. During this time the parasite increases in size but always remains smaller than the blood corpuscle, of which a large portion is unoccupied. After a time fission commences, and this may be observed in blood drawn from the finger (the parasite described by Marchiafava in connection with regular malaria only divides in the internal organs and not in shed blood). This fission takes place in the interior of the corpuscles, after which the segments, from four to sixteen

in number, escape, and either remain free or become enclosed in leucocytes. In these latter, further development very rarely occurs. This is the normal life history, but two modifications may be at times observed: (1) Sometimes the course is more rapid and fission begins before pigment formation; (2) at other times new crescentic forms appear, and the disease assumes a chronic course. This is a highly interesting form, and one about which there has been some controversy. The author believes (1) that in cases in which these occur the fever seldom assumes a recurrent form. He considers (2) that usually these crescentic bodies are not developed, although at the commencement the amœboid parasites may be present in enormous numbers. He states also (3) that these crescentic bodies may be found in the blood of patients suffering from an irregular attack, but are very seldom seen in the course of a regular malaria. These crescents change gradually into oval or round bodies. Generally also, as the author has proved by actual observation, some of these round bodies develop a number of motile filaments, at least in preparations outside the body; finally they disappear and leave no trace. Attempts to cultivate the parasites have all failed. Fowls also showed themselves insusceptible, and the parasite has not been found in their blood although these are said to suffer from malaria. In the blood of some geese, however, affected in an extremely malarial district of the Caucasus, the author found a hitherto undescribed spiral parasite. He is making further researches on this parasite.—*Brit. Med. Jour.*

THE TWO TYPES OF AORTIC INSUFFICIENCY.

In a critical review of the subject of aortic insufficiency by Dr. Easton Lyon (*Gazette des Hôpitaux*, June 13, 1891), stress is laid upon the fact that there are two rather distinct types of this order which ought to be recognized. These are the endocardiac type and the aortic type. The former affects especially young subjects, it most often follows rheumatism, it may remain stationary for years, and it is before all an affection of the heart. The latter affects older subjects; it is related to arterial sclerosis, and is especially a disease

of the arteries. While these two types may not always be distinct, and may even run together, yet the pathological and clinical difference is a distinct and real one.

Taking up the subject of the endocardiac form, Dr. Lyon goes over, first, the question of its etiology. Here the two great factors are trauma and infection, the infection being usually rheumatic fever.

Rheumatism, according to the French statistics, affects the heart's valves in about one-third of all cases, and in about one-third of these the aortic valves are attacked. The infection of typhoid, scarlatina, and erysipelas sometimes acts similarly. Taruma is a rare cause. Three quarters of the cases are males and most of these are adults. The lesions of the valves are those due to acute and to chronic endocarditis. Under the former head we have ulcerations, vegetations, and valvular aneurisms; under the latter a reticulated condition, rupture, and valvular aneurism. The aorta is healthy, but the heart is dilated and hypertrophied.

It is not necessary to go into the detailed analysis of the symptoms as given by Dr. Lyon, since they are familiar to all. The capillary pulse, the tonsillar pulse, and the retinal and pharyngeal pulsations, are curious and striking symptoms sometimes observed in this type.

Aortic insufficiency of cardiac origin is thought to be the form of heart disease most compatible with long life, provided the patient has no other valves involved, and does not have to lead a laborious life. Cures have even been claimed by Potain and others. Sudden death is rare, though perhaps more frequent than in mitral disease. It may be due either to embolism or heart failure.

In the matter of treatment, Dr. Lyon asserts that digitalis is absolutely contraindicated, and that iodide of potassium does no good. Hygienic measures and opium are the only things recommended, and if this represents the limits of French therapy one must consider it rather barren.

Aortic insufficiency of the arterial type is really but one manifestation of a generalized arterial sclerosis. It is caused by the infectious toxic agents, and diathetic poisons; hereditary influence is also a factor. The valves are indurated and sclerosed, the orifice dilated, the heart hypertrophied. The aorta is always dilated

and incrustated with atheromatous plaques. There is excessive arterial tension increase of dullness at the base of the heart, a double murmur, and often local pain on percussion. The subjective symptoms are much more varied and severe than is the case in the cardiac form; anginal attacks, vertigo, syncope, dyspnoea, palpitations. Death more often occurs suddenly from heart failure, cerebral hæmorrhage, or from uræmia.

The treatment here recommended is iodide of potassium, trinitrine, caffeine, milk diet, and intestinal antiseptics.—*Med. Rec.*

PANCREATIC DIABETES.

Rendu (*La Semaine Médicale*, March 25, 1891), has described the varieties of glycosuria. Sometimes glycosuria is transient; the urine of certain individuals, over-fatigued physically and especially mentally, from time to time contains traces of sugar. Such glycosuria disappears after some days of rest and seems to have no serious significance. It is the same with the glycosuria observed in some acute conditions, as in poisoning by the vapors of charcoal. In the cases indicated, the glycosuria is probably a result of congestion of the bulb, and is not true diabetes.

Diabetes is probably always of nervous origin. Rendu is convinced that whenever glycosuria exists, the bulb is involved. In this category belong the cases of Claude Bernard, in which the diabetes was the functional expression of a lesion of the medulla or the fourth ventricle. Leudet has reported cases of basilar meningitis with glycosuria; in some cases of diabetes Luys has post-mortem found marked congestion of the floor of the fourth ventricle; in still other instances, tumors have been found in the same region.

The most important and the most frequent form of diabetes is constitutional or diathetic, of which there are two varieties: adipose or gouty, and thin and pancreatic. The diabetes of the adipose or gouty is hereditary; it may continue for years without impairing the general health. It frequently alternates or coincides with other articular or gouty manifestations, or with such conditions as external hemorrhoids, eczema, migraine, or epistaxis; the patients are also often asthmatic. Some

marked differences exist between these two types of diabetes. Gouty diabetes is insidious in onset; thirst may be absent; furuncles may appear, or an existing wound cicatrizes slowly; there may be itching of the genitalia; there are flashes of heat, or there is insomnia. The quantity of the urine passed during the twenty-four hours does not usually exceed five litres (five quarts) with a maximum of from thirty to forty grams (from an ounce to an ounce and a quarter) of sugar per litre; emaciation does not usually result; finally, the quantity of sugar in the urine is readily controlled by treatment. Each year after a sojourn at Vichy or at Carlsbad, the sugar completely disappears from the urine, to reappear at the end of some months. Such patients, however, may live for many years without accident, save perhaps itching or an outbreak of furuncles. They must, however, be regarded as invalids, as in them surgical or medical disorders may assume a grave character and rapidly terminate fatally. In these cases there is nearly always a psychic cause for the condition—a strong emotion, or financial loss. The nervous system seems to play an important rôle. In some cases bulbar manifestations are seen, as, *e. g.*, albuminuria or polyuria, alternating or coinciding with the glycosuria.

The manifestations of pancreatic diabetes differ from the preceding. The patients are neither diathetic nor predisposed; suddenly, without apparent cause, without prodromes, grave diabetes is evident. Polydipsia associated with polyuria develops in the midst of apparent health, and a condition pronounced debility is soon reached. In some patients intestinal disorders, paroxysmal diarrhoea, ill-defined chronic enteritis, with rapid loss of strength, usher in the disease. The stools may contain free fat. The onset may be marked by cerebral disturbance, such as vertigo, somnolence or insomnia. Premature and absolute impotence not dependent upon general paralysis or locomotor ataxia should create a suspicion of diabetes. The patellar reflex may be abolished. In addition to the excessive thirst and appetite there is an unusual sense of fatigue, at first physical and soon intellectual; the patient becomes apathetic; in some cases moral depression may be the first indication of diabetes. While in the diabetes of the gouty or adipose the quantity

of urine rarely exceeds three or four liters, in pancreatic diabetes it is often much greater. The degree of azoturia is proportional to the degree of glycosuria. Trophic disorders are prominent. Lesions of the retina are observed; the teeth and hair fall out; finally, a series of digestive disorders arise that lead to rapid emaciation. Tuberculosis frequently develops.

Lesions of the pancreas were long ago observed in cases of diabetes. In five cases of nine, Frerichs has noticed atrophy of the pancreas; while the lesions described have not in all cases been identical, they have all been associated with destruction of the organ. Atrophy is frequent; a sclerotic condition, either pericanalicular or perivascular, is often found. In some instances the volume of the pancreas was normal, but the glandular element was completely altered or had disappeared. In dogs, extirpation of the pancreas has been followed by diabetes with polyuria, glycosuria, and emaciation.

It seems, then, that a pathological relation exists between the condition of the pancreas and diabetes—a relation, however, the details of which are not yet understood. It is also probable that the polyuria and glycosuria are more common as a result of lesions of the fourth ventricle. The prognosis of pancreatic diabetes is much less favorable than that of diabetes in the adipose or gouty. In the pancreatic form therapeutics is entirely powerless; slight amelioration may be obtained from the administration of opium, antipyrine, arsenic, lithium, or the bromides; but the glycosuria cannot be made to disappear completely. In diabetes of the adipose, medication is speedily successful.—*News*.

DISSEMINATED SCLEROSIS.

C. ZIMMERMANN (*Archiv. of Ophth.*, vol. xx, No. 3, 1891) reports a case which he diagnosed to be disseminated sclerosis mainly from the association of partial atrophy of both optic discs with spastic paraplegia. The man was a painter, aged 26, and first came under treatment in 1886. He had suffered from dimness of vision in the right eye and diplopia for several weeks. V. R.— $\frac{1}{2}$; V. L.—1. Visual fields and perception of colors normal. Pupils equal; irides acted normally with light; the temporal two-thirds

of both discs were perfectly white; all the vessels were crowded to the normally colored nasal third. There was crossed diplopia, increasing on movement to the left, from paresis of the right internal rectus. At the end of two months' treatment with strychnine and potassium iodide, V. = 1. in each eye, diplopia, absent, ophthalmoscopic appearances unchanged. In March, 1891, the patient displayed the characteristic signs of primary spastic paraplegia, including the abdominal muscles and to a certain extent those of the right upper limb. In the latter there were paræthesiæ, a large anæsthetic patch on the arm, and partial anæsthesia over much of the ulnar nerve territory. Speech was hasty. Vision remained normal; atrophy of discs unchanged. Oppenheim first directed attention to optic nerve atrophy in spastic paraplegia. In his work on the subject he showed that disseminated sclerosis presents the clinical features of primary spastic paraplegia much more frequently than is commonly recognized, and that the affection of the optic nerve is the one sign that may ensure the diagnosis. Uthoff has found that in consecutive atrophy of the optic nerve many of the axis cylinders escape lesion. That fact has been confirmed by Oppenheim, and probably explains the absence of visual impairment.—*Brit. Med. Jour.*

SURGERY.

THE PRESENT STATUS IN BRAIN SURGERY, BASED ON THE PRACTICE OF PHILADELPHIA SURGEONS.

In the *University Medical Magazine*, Oct. 1891. Dr. D. Hayes Agnew presents a paper containing fifty-seven cases of trephining for traumatic epilepsy. Forty-six of the patients were males, four were females, and in seven the sex is unknown. Of these fifty-seven cases, forty-one recovered from the operation, four died, while in the remaining twelve the result is not given. The ages varied from seven to forty-nine years. The mortality did not exceed seven per cent. Thirty-two experienced temporary benefit; nine obtained no relief; four passed out of observation; four were operated on too recently to ex-

press any opinion; four were cured, and four died. The author concludes that traumatic epilepsy is practically incurable by surgical operations, and that a considerable number of such cases had better be relegated to the domain of pure medicine. But he believes that a certain number of patients in this class, on whom internal remedies have no controlling influence, may with propriety be operated on as a palliative measure. He assumes that surgery is responsible for the great majority of traumatic epileptics, and the old doctrine that depressed fractures of the skull without symptoms required no operative interference, in his opinion, has been the cause of very many of the unfortunate sequels of head injuries.

ANTISEPSIS FOR THE HANDS.

The steps of Dr. McLean's process are: 1. The hands, having been thoroughly cleansed, are to be held for two minutes in a solution of the permanganate of potash, 5 parts to 100, after which the hands should be rinsed in clear water. 2. Hold the hands for one minute in a hypophosphate of soda solution, one ounce to the pint. 3. While this is being done add the oxalic-acid solution, $\frac{1}{2}$ ounce to the pint of water. This causes a double chemical combination, whereby an oxalate of sodium and sulphur dioxide are formed, which have powerful decolorizing and disinfecting properties. The permanganate stains are promptly removed from skin and nails; after again rinsing the hands in sterilized water they are ready to come in contact with either an exposed serous or a lacerated mucous membrane. The hands may then be regarded as both surgically and obstetrically clean.—*Journal American Medical Association.*

INTERNAL STRANGULATION.

Mr. Arbuthnot Lane in a recent paper on the varying modes in which a strangulated loop of bowel reacted to the constricting medium. He narrated two cases of strangulated hernia, remarkable for the extreme sharpness of the constricting edge. In one, the loop of bowel had passed along with a piece of omentum through a small aperture. The bowel in the sac was not much congested. The distal portion of the loop was shielded from the sharp con-

stricting margin by the omentum, but more than three-quarters of the circumference of the proximal portion of the gut had been subject to its pressure, and had by a process of ulceration been deprived of all but its peritoneal coat for a breadth of nearly one-eighth of an inch. This coat appeared very thin, but was not perforated. Mr. Lane invaginated the damaged portion of the circumference of the bowel into that beyond and retained it with sutures. The man recovered. The second case was one of reduction *en masse*, with a constricting medium precisely similar to that in the preceding case, but both proximal and distal ends of the loop were so deeply ulcerated as to leave only the peritoneal coat along the line of constriction; and though there was no obvious perforation, the fluid in the sac and that in the abdominal cavity in the vicinity of the hernia smelt strongly of faeces. The loop was excised, and the ends of the bowel approximated by Senn's method. Symptoms of peritonitis, which were only local before the operation, soon became general, and death ensued on the following day. In this, as in the first case, the loop of bowel showed very little change except at the point of constriction. It would have been impossible to have performed the operation at all, owing to the very enfeebled state of the patient, but for the free intravenous injection of saline solution. With these two cases he contrasted the condition of bowel seen in strangulation hernia, when the constricting medium was broad and produced no local distinctive change in the gut. In such, the condition of the strangulated loop simulated that resulting from the experimental ligature of a loop of bowel by a piece of broad tape or gauze, the bowel becoming intensely congested, thick, leathery, inelastic, and, for a longer or shorter time after the constriction had been removed, functionless. If it were subjected to the influence of the constriction for a sufficiently long time, gangrene took place at the convexity of the loop, commencing at a point most distant from the constriction. He pointed out that between these two extremes any number of intermediate conditions and combinations occurred, and he indicated their importance surgically. The freedom of the bowel from congestion in the two cases described, he explained in this manner: When the loop first be-

came strangulated, it probably soon became more or less congested, but the very sharp constricting margin produced rapid destruction of the soft mucous and muscular coats of the bowel by its pressure, and their consequent disappearance enabled the veins which were originally constricted to dilate, and to occupy the space filled originally by these bulky coats, so the back flow of blood from the bowel was carried on satisfactorily, the loop recovering its normal appearance more or less completely and rapidly.

OBSTETRICS.

ON RAPID DILATATION OF THE UTERUS FOR DIAGNOSIS AND TREATMENT IN CASES OF UTERINE HÆMORRHAGE.

Dr. Amand Ruth read a paper on this subject at a meeting of the London Medical Society based on 52 consecutive cases; 42 out of the total 52 cases (18 per cent.) were found, after dilatation, to have a removable intrauterine cause for the hæmorrhage. If in a series of cases set apart for Apostoli's treatment the uterus were first explored and then tabulated according to whether the fibroids were intramural, submucous, and polypoid, or whether a fungous endometritis were present, and the result of the treatment thus recorded, the class of cases in which Apostoli's treatment was appropriate would soon be known, and the previous dilatation would have enabled the operator to ascertain the exact spot where the current could be best applied. Long-handled metallic graduated bougies were considered the best dilators, under deep anæsthesia, with rigid antiseptics. The question of tubal dilatation complicating uterine disease was discussed with reference to rapid dilatation. The 52 cases consisted of 13 placental or membranous retentions, 5 polypi, 2 polypi and fungous endometritis, 2 fibroids without fungous endometritis, 7 fibroids with fungous endometritis, 8 fungous endometritis, 5 granular endometritis, 5 malignant disease; in 5 no intrauterine cause was found. The following conclusions were considered to be proved: 1. That where there was profuse menorrhagia, and more especially where metrorrhagia was also present without obvious cause, the cavity of the uterus

should be explored. 2. That the best way to explore the uterine cavity was to rapidly dilate the cervix with graduated bougies under anæsthesia. 3. That with rigid antiseptics there was practically no risk, and very rarely any subsequent pyrexia, unless malignant disease or salpingitis was present. 4. That even when tubal disease was present or suspected, exploratory dilatation of the cervix for metrorrhagia of apparently intrauterine origin was not necessarily contraindicated, salpingitis being often secondary to and aggravated by intrauterine disease. Here, again, antiseptics was all important. 5. That where fibroids of the uterus were evidently present the immediate cause of the hæmorrhage might be a removable one, such as a co-existing polypus or a fungous endometritis, and that, therefore, the uterine cavity should be, when practicable, explored before removal of the appendages or hysterectomy was entertained. 6. That in some cases dilatation alone sufficed to greatly relieve both the hæmorrhage and pain. 7. That if an exploratory dilatation were more often adopted prior to the employment of Apostoli's treatment, it would tend to a more exact knowledge of its applicability, and put its use on a more scientific basis.

PORRO'S OPERATION: RETROPERITONEAL TREATMENT OF PEDICLE.

HANS V. WOERZ (*Centralbl. f. Gynak.*, No 5, 1892) urges the advantages of sinking the pedicle after Porro's operation. Professor Chrobak operated in a case of mollities in October, 1891; the patient was aged 36, and in her sixth pregnancy; the pelvis was much contracted, the urine free from albumen. The uterus was drawn out and two large flaps of peritoneum dissected off from before and behind. As the serous membrane was thick and vascular and but loosely connected with the muscular coat of the pregnant uterus, its dissection was very easy. A vertical incision was then made in the uterus, the elastic ligature being applied, and a living full-term fœtus removed. The placenta and membranes were removed. The broad ligaments were secured after the usual manner. Then the uterus was cut away above the ligature. A large tampon of iodo-

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form gauze was pushed into the vagina so as to lie against the os. The raw surface of the cervix was cauterized with Paquelin's instrument and the uterine arteries secured by transfixion. The elastic ligature was removed: some vessels bled and had to be tied, but much of the tissue of the cervix had to be trimmed away and the cautery applied once more. An iodoform point was thrust into the cervical canal from the abdominal aspect. Some vessels began to bleed and were secured. The cervix and the flaps had retracted considerably by this time. The flaps were carefully sewn over the raw surface with interrupted silk ligatures. The abdominal wound was then closed. The patient recovered. Two months later the cervix felt perfectly movable, there being no inflammatory infiltration in the pelvis. The removal of the appendages had already checked the advance of the mollities: the bones no longer ached as before.—*Brit. Med. Jour.*

MULTIPLE ARTHRITIS CAUSING PREMATURE LABOR.

The clinical bearing of arthritis during pregnancy is considered by Tracon and Bué in the *Archives de Tocologie*, 1892, No. 1. They report two cases as follows: The first was a woman pregnant for the second time, who was subject to sudden cold followed by pains in the lower extremities, especially in the right knee. She entered a hospital where she was observed to have fever for several days. The pains passed through the lower extremities to the upper, the left shoulder becoming especially involved. On entering the Maternity Hospital her rheumatic affection was most prominent in the thumb of the right hand, which was immovable and very painful to the touch. The right knee was also very painful and partly ankylosed. The patient had abundant leucorrhœal discharge but otherwise revealed nothing of interest. The induction of labor was determined upon by the method of warm antiseptic douches. Soon after delivery the pains began to grow less, and finally disappeared under treatment by counter-irritation. The child suffered from pain in the left arm, which caused it to immobilize the limb.

The second case was that of a woman

aged twenty-seven years. She was taken during pregnancy with inflammation of the right knee, which had been previously immobilized by a surgeon. The arthritis was considered gonorrhœal.

GYNECOLOGY.

METRRORRHAGIA.

Hydrastinin hydrochlorate in doses of a third of a grain, every six or eight hours, is recommended as a useful remedy in the treatment of metrorrhagia dependent upon congestion or catarrhal inflammation of the uterus. The good results should be perceptible in the course of two or three days.—*Berlin, klin. Wochenschr.*, No. 7.

BACTERIOLOGY OF ENDOMETRITIS.

In order to investigate the bacteriology of endometritis, Dr. Brandt of St. Petersburg recently examined twenty-five cases, including hæmorrhagic, catarrhal, gonorrhœal, and septic forms. After carefully cleansing the external genitals, the vagina, and the cervical canal with a solution of corrosive sublimate of the strength of 1 in 1000, with alcohol and with ether, preliminary bacteriological observations on scrapings from the cervical canal invariably giving negative results, the internal surface of the uterus was scraped with a curette, and dry preparations as well as cultures in agar and gelatine were made. The plate method was likewise employed, as were inoculations in animals. The portions of mucous membrane brought away were also carefully examined with the microscope. In almost all cases microbes were found, both pathogenic and non-pathogenic—the former, however, preponderating. Of these both cluster and chain cocci were met with, amongst the non-pathogenic bacteria there were occasionally bacilli, but most commonly cocci. It was remarked that cases where pyogenic microbes were found were not clinically distinguishable from others where none could be detected: these pyogenic microbes, however, when injected into animals invariably produced both local and general symptoms, such as abscesses and a rise of temperature. Sometimes but by no means always, microbes were seen in the substance of the mucous membrane.—*Lancet*.

EFFECTS OF CAUSTICS ON THE ENDOMETRIUM.

L. M. Bossi (*Nouvelles Arch. d'Obstet. et de Gynec.*, January 25th, 1892) continues his researches, which demonstrate the very definite effects of strong caustics, such as chloride of zinc points, on the endometrium. The caustic does not simply destroy the mucous membrane forever; on the contrary, the endometrium is reproduced, but in a morbid form. The chief feature in this change is a violent inflammatory process, which causes the orifices of the uterine tubular glands to be obliterated. The glands then undergo cystic changes. Secondary atrophy of the endometrium may occur, but more frequently that membrane is reproduced with the abnormal addition of numerous cysts, which bear glandular epithelium and increase in size. The application of the curette, on the other hand, gives rise to none of these bad and permanent results. The epithelium of the endometrium is reproduced, and no obliteration of the orifices of the glands, no subsequent cystic changes occur.—*Brit. Med. Jour.*

APHTHÆ OR "THRUSH" OF THE VULVA.

P. Gilulini (*Centralbl. f. Gynäk.*, December 26th, 1891) describes a case of aphthæ, or rather an eruption identical with the parasitic stomatitis, or "thrush" of infants, which occurred in a woman, aged 24, in the second month of pregnancy. Two months previous one of her children had an attack of thrush. The patient suddenly felt very ill, and suffered from intolerable burning and itching in the vulva. The labia majora and minora were found much swollen. The labia minora were of a deep red colour, and dotted over with little white spots, which disappeared on brushing the surface gently with wool, leaving behind very superficial breaches of the epithelium. The entrance to the vagina was as yet free. A thick yellow discharge proceeded from the vagina. Although the parts were at once washed with a solution of sulphate of zinc and carbolic acid, the disease made great progress, and on the next day the entire vulva and part of the vagina appeared as though covered with a thin film-like layer of curds. The œdema of the vulva had increased, micturition caused pain and burning sen-

sation, and the temperature was high. Diphtheria was suspected, and some of the milky film was examined, when the *oidium* or *saccharomyces albicans* was discovered. Lead lotions were applied to the parts, and the vagina was syringed with a solution of carbolate of lime. In about five days the patient was cured. The urine was free from sugar.—*Brit. Med. Jour.*

PEDIATRICS.

PAPOID IN DIPHTHERIA.

Dr. I. N. Love finds that an application destructive to the membrane and at the same time germicidal in its effects, is a vegetable product derived from the *Papaya Carica* and possessed of marked digestive powers, known as papoid. It comes in the form of a powder, a small portion of which should be used at intervals of one, two or three hours as may be desired, according to the extent of the deposit which we may desire to remove. The same should be made into a paste with a small quantity of water and applied with a fine camel's hair brush. I have found this product very satisfactory as a destroyer of the membrane. An additional advantage of this application is that such parts as may be swallowed will serve to help nature to digest whatever food there may be in the alimentary canal. This is not an unimportant point, and right here, in order to emphasize the importance of nutrition, we will anticipate that which will be considered later, and suggest that in the beginning of the treatment, the alimentary canal should be promptly emptied and placed in the best possible shape for the securement of nutrition, because we have a "battle of the cells" before us, and the greatest enemy to the *Klebs-Löffler bacillus*, or any other, is well-nourished blood. Insist upon an abundance of nourishment from the start. Food that is in a form ready to be promptly assimilated, such as eggs, peptonized milk with beef peptonoids, bovine and raw scraped beef, together with fresh well-ripened fruits should be given ad libitum. Another delicacy which we can give them, and one that they are fond of, is ice cream, and if we can have it made at home, it is better for then we can be sure that the best and purest cream is used. Ice cream, by the manner of prep-

anation, is rendered more digestible than cream would otherwise be without this treatment. It is grateful to the palate, cooling to the burning throat, and may be utilized as one of the rewards which we can offer to our little patient, for the taking of our medicines. We will not go far wrong if during the progress of our case we give from one to two grains of Papoid just referred to, either in the form of a powder, in a capsule, in solution or it may be mixed with a little powdered chocolate and sugar and taken as a bonbon. Given in this way it serves to help the digestive apparatus in the important work that is before it.—*Medical Mirror*.

FOR COLIC.

R	Tinct. opil (deodorata).....	3
	Chloroform.....	3
	Spts. peppermint.....	3
	Tinct. podophyllin.....	3

M. Sig.—Teaspoonful in one-third of a glass of sweetened hot water; children in proportion; repeating the dose every half hour or hour until relieved, increasing the amount if necessary. As an extemporaneous prescription the above is a great favorite of mine.

The tincture of podophyllin is easily made by percolation. Place in the percolator sixteen grains of the drug, previously moistened with alcohol, then pour on a sufficient amount to make two ounces. If preferred it may be made by macerating the podophyllin in two ounces of alcohol for seven days, then filtering through paper, adding alcohol sufficient to make two ounces of the tincture.

T. G. STEPHENS, M. D.—*In Medical Science*.

CHRONIC PERITONITIS IN CHILDREN.

Henoch, in a paper on chronic peritonitis in children (*Deutsche med. Woch.*, January 7th, 1892) directs attention to some of the rarer forms and causes. He observes that a certain small proportion of the cases are due to trauma, and relates an instance in which enormous ascites followed without pain or tenderness on an injury to the belly; in this case there was extreme plastic peritonitis. He also relates a case in a girl aged 11, of peritonitis coming on about two months after measles; the amount of fluid which collected was very

large. She had been tapped twice before coming under Henoch's care, but at the third tapping $1\frac{1}{4}$ gallon was withdrawn; the fluid again collected, but subsequently diminished spontaneously, and the child made a perfect recovery. The diagnosis of such a case is difficult, but after withdrawal of the fluid it could be ascertained that the abdominal organs presented no evidence of enlargement, and that in particular the liver was not altered in size. The treatment under which the girl recovered was hot air baths, and painting of the abdomen with iodoform collodion. Henoch admits that the treatment of chronic peritonitis, and especially of tuberculous peritonitis, by medical measures is very unsatisfactory; hydropathic packing of the belly, painting with iodoform and tincture of iodine, and the administration of iodide of iron are all useless, and tapping commonly affords only temporary relief. As to the alleged cures by laparotomy, he doubts their permanency, and mentions a case which illustrates the liability to mistaken diagnosis; in this case the child, a girl aged 5, presented well marked ascites, and exudation into the left pleura; the latter disappeared under treatment, but the former did not; laparotomy was performed and the peritoneum was found to be covered with small reddish-gray granulations; some of these granulations removed and carefully examined proved not to be tuberculous; the child made a rapid and complete recovery. Henoch considers that this was a case of simple peritonitis accompanied by the formation of small fibromata, as has been observed occasionally in women. He states that on two occasions he has seen a similar condition in the pleura; he compares it with the case of peritonitis following injury, in which there was a remarkable thickening of the peritoneum. In discussing Henoch's paper, Baginsky observed that simple peritonitis seemed sometimes to be secondary to intestinal catarrh, and with reference to treatment spoke very unfavorably of laparotomy. He had the operation performed in two cases, but would never again submit a young child suffering from tuberculous peritonitis to it. In older children, and in cases in which there was a large amount of fluid, it might be justifiable. Henoch considered that the operation was always justifiable in the early stage if the other organs were free from evidence of tuberculosis, and ob-

served that no other treatment had ever succeeded in giving such good results in undoubted tuberculous peritonitis, as had been reported by competent surgeons after laparotomy.—*Brit. Med. Jour.*

ANTIPYRINE IN WHOOPING-COUGH.

Dr. E. Feer (*Medical Press*, 1892, No. 2749, p. 24) believes that this remedy should have the first place in the treatment of whooping cough. Eighty cases were under observation and the dose was in proportion of that of fifteen grains for a ten-year old child, given morning and evening. When several children in the family were affected with this disease the results were not so good (mutual reinfection—Professor Hagenbach). The remedy was beneficial in four-fifths of the cases. It cannot be ascertained whether it acts as a germicide or as a sedative—very likely the latter, as Demme and Sée have proved that it has a direct restrictive influence upon the reflexes.

GROWING FEVER.

Barbillion has written a long article on the so-called growing fever of children. His conclusions are that the fever of growth no more exists than does a fever of obesity or of senility. The symptoms which have been grouped under this head are due to a great variety of causes, such as are seen in ephemeral fever, stomach troubles, acute osteomyelitis and other pathological lesions.—*Rev. Mensuelle des Maladies de l'enfance*, January, 1892.

HYGIENE.

THE ALLEGED INCREASE OF INSANITY.

A very interesting report was presented a few days ago to the half-yearly statutory meeting of the Barony Parochial Board of Glasgow by the Acting Inspector of Poor. The board possesses a lunatic asylum at Woodilee, near Glasgow. In five years the cost of this institution has increased by £3,600, and in the same period the cost of boarding out lunatics has increased by £1,241, a total increase of £4,841. This, the inspector believes, does not indicate an actual increase of insanity but that more of the insane poor, especially old and in-

curable cases, are being handed over to the parochial authorities. In the half-year ending February 14th, 1892, the number of lunatics was greater by 93 than in the same period for 1886-87. A very noteworthy point was a coincident decrease in the number of paupers, to the extent of 916, implying a total saving to the rates of £3,889, equal to 1d. per £1. In six months, the worst portion of the year, the decrease in the roll of paupers was 74, attributed to increased advantage being taken of insurance and other benefit societies, to the operation of philanthropic and charitable agencies, and to a greatly improved condition of the working classes as a whole. To the discriminating action of the Relief Committee in selecting the best form of relief suitable to each applicant the result is also largely attributed. For it is noticeable that while there are 142 fewer inmates in the ordinary wards of the poor-house there are 61 more inmates of the hospital. The Inspector suggests that the development of the hospital side of the poor-house by an extension of trained sick nursing and by a more complete separation of the hospital from the poor-house will force itself upon the consideration of Poor-law authorities within the next few years.—*Brit. Med. Jour.*

VARIOLA AND VACCINE.

Dr. Chauveau, Professor in the Museum of Natural History of Paris, communicated to the public a *résumé* of his researches on the subject of the transformation of the virus of small pox into vaccinia, or vaccine:—

It is well known that a number of physicians and most of the people believe that vaccine, or vaccinia, produced from the bovine species for the purpose of vaccination against smallpox, is nothing else than smallpox virus itself, modified by successive passages through the animal organism. The Commission of Lyons, France, under the direction of Dr. Chauveau, has established, it seems very positively, that (as has long been believed by most thinking scientists) this is not the case. The virus used for vaccination (cow-pox or horse-pox) is certainly a close relative of the virus of smallpox, and it is perhaps legitimate to admit that they were derived from a common source or from one another, in centuries past. But at this time they are a

distinct species, and it seems impossible to reduce them to a single species by the known methods and artifices of experimentation. Inoculations of smallpox in the horse and in cattle produce variola in them, and the introduction of the virus thus produced in these animals, gives to a man variola itself. It was found that the animals inoculated with smallpox became immune against vaccinia, just the same as man inoculated with vaccinia becomes immune against variola.

The symptoms of these different viruses in animals vary considerably, and there can be no mistake made in the diagnosis.

Messrs. Haccius and Eternod of the Vaccinal Institute of Lancy, Geneva, produce a vaccinal lymph cultivated on calf, which is said to be transformed from variola, and not very long ago published their conclusion that variola and vaccinia are probably identical. M. Chauveau, in experimenting with this lymph, found that it contained, in reality, the true virus of smallpox, and therefore it is a dangerous article to use for vaccination. Vaccine, then, should not for practical purposes be considered as an attenuated variola virus, for the two are now distinct, and both are strong viruses of their respective species, whatever their origin may have been.

ARSENIC IN COMMON LIFE.

This was the subject of a recent address by Prof. C. F. Oandler before the Academy of Medicine, and abstracted in the *Medical Record*, Nov. 28, 1891. He took the ground that there is no danger to be feared from arsenical poisoning from living in rooms papered with arsenical wall-papers, that the quantity of arsenic that could be given off by such a wall-paper could not possibly do any harm. He gave a critical review of the various cases that have been collected by the Board of Health of Massachusetts, in which he finds no proof of arsenical poisoning.

He could find no record of a case of arsenical poisoning in any of the factories where arsenical wall-papers are made. He said that the symptoms of arsenical poisoning are not so specific that physicians could usually make a positive diagnosis of arsenical poisoning.

Incidentally he remarked that there should be a law prohibiting undertakers from using arsenic in the embalming process.

THE DEADLY COLD BED.

If trustworthy statistics could be had of the number of persons who die every year or become permanently diseased from sleeping in damp or colds beds, they would probably be astonishing and appalling. It is a peril that constantly besets traveling men, and if they are wise they will invariably insist on having their beds aired and dried, even at the risk of causing much trouble to their landlord. But, according to *Good Housekeeping*, it is a peril that resides also in the home, and the cold "spare room" has slain its thousands of hapless guests, and will go on with its slaughter till people learn wisdom. Not only the guests, but the family, often suffer the penalty of sleeping in cold rooms and chilling their bodies, at a time when they need all their bodily heat, by getting between cold sheets. Even in warm summer weather a cold, damp bed will get in its deadly work. It is a needless peril, and the neglect to provide dry rooms and beds has in it the elements of murder and suicide.

MEDICAL CHEMISTRY.

THE PHENOMENA OF RANCIDIFICATION.

M. Ritsert has published in the *Revue Scientifique* a very interesting paper describing the experiments made by him to solve the question of the cause of the rancidification of fats. He first directed his attention to the micro-organisms always present in fats. Isolating these and sowing them upon sterilized fats, he found that no acids were produced, and further, that subsequent enumeration of micro-organisms demonstrated that these not only did not grow and increase in numbers, but that most of them actually perish when placed in contact with sterilized fats. The inoculation of sterilized fat with rancid fat produced the same negative results. These experiments eliminated the microbial theory of the origin of rancidity. On exposing the inoculated fats to the direct sunlight M. Ritsert noticed that the bacteria, etc., died more rapidly than when the direct light was excluded, but at the same time the fat became rapidly rancid. Light, therefore, seemed to be a direct agent in rancidification. This point fixed, the experimenter next turned his attention to the atmos-

phere, or the gases which constitute it, and investigated whether it or they played any role in the phenomenon. Nitrogen and oxygen alone, either or both of them, have no effect *in the dark* upon fats, and nitrogen alone none in the light, but oxygen and light effect rancidification rapidly. Rancidity, then, is an oxidation, but one that is never produced in the absence of light. Hence, fats kept in absolute darkness will not become rancid.

ACTION OF BORAX ON CHLORAL.

Mr. Dujardin (*Bullet. Commerc.*, April, 1891), found that in preparing solutions containing borax and chloral, considerable depends on the temperature at which the compounds are brought together. At ordinary temperatures no change is observed; on warming, however, decomposition of the chloral takes place, a long-continued, slightly elevated temperature decomposing the chloral as effectually as a few minutes boiling. The decomposition in this case seems to be similar to that which takes place when an alkaline hydrate is used; at least chloroform is one of the decomposition products. In dispensing the two substances it is recommended to dissolve the borax, if necessary, by heat, and allow the solution to cool before adding the chloral.

BISMUTH SALICYLATE.

Duyk (*Bull. Soc. Pharm. Bruxelles*, Oct., 1891), proposes the following method for the preparation of bismuth salicylate: 100 gm. subnitrate of bismuth are treated for one or two days with one litre of water, to which 50 gms. water of ammonia had been added. After shaking sufficiently the subnitrate is completely changed into an oxide, which is collected and carefully washed with water. This oxide, after expression, is heated, under constant stirring, with 25 gms. powdered salicylic acid on a water-bath. When union has been effected, which is found by using litmus paper, the salicylate of bismuth is washed and then dried at a slightly elevated temperature.

REACTION OF SALICYLIC ACID.

In the *Pharmaceutische Post*, G. Kottmeyer asserts that the statement of Vortmann that the neutral salicylates give

no precipitate with barium or calcium chloride, even on heating, or when ammonia or alcohol is added, is not true. Kottmeyer finds, on the contrary, that a 20 per cent. solution of sodium salicylate gives an immediate precipitate on shaking with a strong solution of calcium chloride; a 10 per cent. solution also gives a precipitate when ammonia is added; even a 1 per cent. solution, mixed with a few drops of strong calcium chloride solution, gives a precipitate on adding a little ammonia and shaking or warming. A slight precipitate is produced when barium chloride is added to a 20 per cent. solution of sodium salicylate, and a turbidity when a 10 per cent. solution is used.—*Ex.*

NEWS AND MISCELLANY.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

The second annual meeting of the American Electro-Therapeutic Association will be held in New York, October 4th, 5th, and 6th, 1892, at the N. Y. Academy of Medicine, 17 West 43rd St.
W. J. MORTON, M. D., President.
H. R. BIGELOW, M. D., Secretary.

VISITING NURSE SOCIETY. OFFICE, 1203 RACE STREET, PHILADELPHIA.

The Executive Committee would draw the attention of the public to the fact that not only is help offered by this Society to the poorer and working classes, but also that persons living in boarding houses or otherwise limited accommodations, and needing care, can obtain efficient nurses for daily visits. Thus, while greatly diminishing the expense of a resident attendant, they are also relieved of all responsibility regarding meals and lodgings, which under many circumstances almost doubles the wages given, besides being a burden to the patient.

During the past few years having met various applications for this branch of the work, and it having proved thoroughly satisfactory, the Society is enlarging its field in this direction.

The sum charged will be in proportion to the service required, a single visit will be one dollar an hour; special terms for a number of visits can be arranged with the head nurse.